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# INDEX RAFINESQUIANUS

The plant names published by C. S. Rafinesque with reductions, and a consideration of his methods, objectives, and attainments

BY ELMER D. MERRILL



THE ARNOLD ARBORETUM OF HARVARD UNIVERSITY JAMAICA PLAIN, MASSACHUSETTS, U.S.A.

# **PREFACE**

THIS VOLUME is not biographic, although in it I have assembled a considerable amount of more or less pertinent information regarding that strange character, Constantine Samuel Rafinesque, on whose published botanical work it is based. The body of the text proper consists of lists of all the generic, specific, and varietal names for plants proposed by Rafinesque that I have been able to locate in his widely scattered published papers. Their equivalents in terms of modern nomenclature have been indicated as far as it has been possible to make reasonably accurate reductions. Accurately to place most of his very numerous new generic names has proved to be a relatively simple matter as Rafinesque was one of the earliest disciples of the type method. Reductions of his even more numerous new binomials is much more difficult chiefly because of his usually very inadequate original descriptions.

It is doubted if in the entire history of descriptive biology there is any other author who has suffered more from the weight of authority than Rafinesque. The leading biologists of his time, both in Europe and in America, ignored his numerous nomenclatural proposals to an extraordinary degree, whether he was correct in his conclusions or not. The lesser lights of the times could only follow their leaders. There was at that time no strict priority rule, and individual authors were free to exercise considerable latitude in the selection of plant names. Asa Gray, in 1841, in his essentially fair evaluation of Rafinesque's published botanical work, recognized the situation, stating: "Many of Rafinesque's names should have been adopted, some as a matter of courtesy, and others in accordance with strict rule." About the best that we can do, a century or more after the Rafinesque proposals were published, when it is discovered that one of his correctly published generic names has priority over a more recent and currently accepted one proposed by some other author, is promptly to add the now offending earlier Rafinesque name to the already over-long list of officially rejected ones. The reason, of course, is that this procedure obviates many undesirable changes in currently accepted and widely used plant names. It is perhaps worthy of note that within the present decade, at least two new generic names have been proposed which were unnecessary, for Ipheion Raf., 1837, was based on the same type as Beauverdia Herter, 1941, and Stethoma Raf., 1838, has more than a century of priority over Psacadocalymma Bremekamp, 1949.

Whatever else one may say regarding Rafinesque, one must admit that he was very adept in selecting short euphonious generic names for the new entities that he proposed. For those who are intrigued with the meanings of generic names, most of which are derived from classical sources, Rafinesque's work presents many puzzles. Because he firmly believed in short names and strenuously objected to sesquipedalian ones, he did not hesitate to eliminate entire syllables in order to attain his objective. He rarely explained the origin of a name proposed by him, but one striking case illustrates his method. In publishing the name *Diodeilis* he states "abridged from *Diodontocheilis*." The end result, *Diodeilis*, would scarcely indicate to the most skilled classical scholar its source as from the Greek, meaning a plant the flowers of which have a two-toothed lip.

His new generic names total about 2,700, a vastly greater number than those proposed by any other botanist, and nearly twice as many as those recognized by Linnaeus in the middle decades of the eighteenth century when the binomial system was established. Yet only about 30 of these Rafinesque names have been generally accepted although on the basis of strict priority at least 160 would qualify. Many more Rafinesque names could be added by those disciples of the idea of subdividing large collective groups such as *Euphorbia*, Acacia, Mimosa, Cassia, etc. Thus Messrs. Britton, Small, Rydberg, and others to a lesser degree, have within the past half century reinstated certain Rafinesque generic names as they subdivided various large genera. Their procedure in accepting such names was correct, even if perhaps many botanists may not elect to follow them in recognizing few to many smaller genera in place of a single large one.

There are still those who consider that Rafinesque was insane, this same view having been expressed by some of his contemporaries. From some of Rafinesque's numerous publications one

could build up a rather convincing case against his sanity; yet from other selections it could be shown that he was essentially sane, even if he was erratic. Those who hold the insanity belief would argue, I suppose, that he, being mentally beyond the pale, was therefore irresponsible, and that consequently his admittedly often ill-conceived and very numerous nomenclatural proposals in both botany and zoology should, or at least could, be ignored.

It is clear that most of Rafinesque's published work in descriptive biology was rather consistently ignored by his contemporaries and immediate successors. It was only with the development and general acceptance of the essentially equitable rule of priority among both botanists and zoologists, about a half-century after Rafinesque's death, that systematists commenced to give some attention to his nomenclatural proposals. Thus in the past fifty or sixty years a considerable number of Rafinesque's earlier generic names, which he proposed in good faith, have been reinstated; and those proposed at later dates by individuals ignorant of what he had proposed, dropped into synonymy. The result, of course, was a very considerable amount of name changing under the priority rule. Many of Rafinesque's generic and specific names, properly published in the early decades of the last century, still remain unlisted in standard indices. One of the objectives in preparing this document was to remedy this unflattering situation. Certainly with the almost universal acceptance of the priority and homonym rules the names should at least be listed; this I have accomplished.

Doctor R. E. Call's *The Life and Writings of Rafinesque*, published in 1895, gives us an eminently fair appraisal of Rafinesque's aims and accomplishments. He states that as he assembled the data regarding Rafinesque it was his hope:

"That a better and more intelligent understanding of this eccentric naturalist might result. A number of impressions were forced upon my attention as the work proceeded; among other conclusions reached was the one that Rafinesque has not been treated always fairly by his contemporaries. Resulting from this was the conviction that many naturalists now living had formed opinions concerning the nature and value of Rafinesque's work, which appear to me to be quite erroneous. In the hope that some of these misapprehensions might be corrected, the task of writing his life, which is quite a labor of love, was undertaken."

Rafinesque was a strange character, a man with unusual attainments, tremendous energy, and remarkable mental ability; yet unstable, vacillating, and one who frequently, too frequently, demonstrated his lack of appreciation of the realities of life. Being uncontrolled and uncontrollable, he alienated the sympathy of most of his immediate associates, and of all contemporaneous biologists. He firmly believed that in the issuance of his very numerous scientific and popular papers he was making serious contributions to the sum of human knowledge. He was, in many respects, distinctly ahead of the times in which he lived, and was actually a pioneer in many utterly diverse fields of human endeavor.

It can truthfully be said that to a remarkable degree he lived only to publish. His bibliography as worked out in great detail by Professor J. T. Fitzpatrick, in his Rafinesque. A Sketch of His Life with Bibliography, issued in 1911, is an impressive work with approximately 940 titles. This list of Rafinesque's publications, if we use Fitzpatrick's criterion as to what constitutes an individual title, has now been increased to more than 1,000 items. In considering Rafinesque's publishing activities one is, in a way, reminded of one of the numerous strange characters in George Borrow's Lavengro, the nameless author (Chapter LXVI) who had the habit of touching various objects to baffle the evil chance, and whose life had become an uninterrupted series of doubts, anxieties, and trepidations in the fear that he might be charged with plagiarism by some of the readers of his published works. When asked why he did not give up authorship, since it caused him so much mental suffering, he responded: "Once an author always an author." Not that Rafinesque touched to baffle the evil chance, as did the Borrovian character, nor that he had any inhibitions, doubts, anxieties, or trepidations regarding the quality and value of his published works; rather, when once launched on his unbridled publishing career, he could not stop as long as he had funds with which to cover the printing costs or could find editors willing to accept his offerings for publication in serial literature. Thus with him "once an author always an author" definitely applies, and publishing became a sort of mania. It mattered little to him that his

PREFACE

offerings were for the most part consistently ignored by the scientists of his generation in both the United States and in Europe. He planned vast undertakings and from time to time published lists of titles of volumes he proposed to prepare and issue; if these plans had been consummated his ultimate published output might perhaps have been twice as great as it actually was at the time of his death in 1840 when he was 56 or 57 years old. It is perhaps fortunate that most of these projected works never appeared in print.

The enumeration of Rafinesque's published technical names of plants is reasonably complete; that is, unless some future bibliographer discovers some hitherto overlooked paper of that voluminous author. The chances of any such discovery are rather remote, considering the vast amount of research which has been prosecuted by competent bibliographers in the last half-century. My work has been done in the same spirit that inspired Doctor Call and Professor Fitzpatrick to compile their important basic works on Rafinesque; that is, to try, even at this late date, to render some justice to Rafinesque for what he accomplished that was good.

"Time renders justice to all at last," quoted from Rafinesque's Life of Travels, p. 92 (1838), has scarcely been fulfilled in his case. In spite of the priority rule now followed by both botanists and zoologists, Rafinesque's earlier proposals are still frequently ignored. The height of egotistical absurdity is reached when one recent author, in an attempt to maintain one of his own binomials against a much earlier one of Rafinesque, which may represent the same species, uses the term "outdated literature" as a part of the argument to support his contentions. In all of Rafinesque's very numerous publications in the field of descriptive biology, no matter how severely we may criticize him as to detail, he did in general conform to established tenets. To salvage the few solid grains from among the overwhelming mass of chaff in Rafinesque's nomenclatural proposals, as Fernald has expressed it, is a task that needs to be done. We may agree that it would have been better for modern biologists concerned with problems of nomenclature had Rafinesque never published a single paper on descriptive biology, but publish he did, and on an extraordinarily extensive scale, and we must do the best that we can with his numerous proposals. Rafinesque, like very many other botanists, including many modern ones, never realized that a new plant name, once published, is irrevocable.

The surprising thing, in view of the relatively early dates of Rafinesque's publications, is the slight number of changes in the technical names of plants that will be occasioned if advantage be taken of the method by which certain correctly used but more recent generic names may be conserved against his earlier ones. The list of officially conserved names is already a long one. In it we find no less than 90 of Rafinesque's earlier names rejected in favor of later ones proposed by other authors. In this work it is noted that there are about 60 or more additional cases where Rafinesque's names have priority, and where the principle of conserved generic names has not been invoked. Under the provisions of the last edition of the International Code of Botanical Nomenclature, these sixty-odd earlier generic names could be adopted. Thus it would be possible now to change approximately 2,000 plant names by transferring the specific epithets from generic designations now in general use to the earlier Rafinesque ones; the remedy here is the conservation of additional selected names.

In this work I have merely prepared the lists, leaving the matter of making recommendations as to which Rafinesque generic names should be rejected to specialists, monographers, and individuals familiar from long experience with special floras. This is not a local, nor even a North American problem, for Rafinesque's proposed new names apply to the floras of all parts of the world. This volume has not been made a vehicle for the publication of new names, and so far as I am aware no new generic or specific names appear in it.

The preparation of this volume was rendered possible through two modest grants, one of \$600.00 from the Penrose Fund, American Philosophical Society, and a similar amount from the Milton-Clark Fund of Harvard University. I wish also to thank numerous individuals who have assisted in one way or another, particularly by scanning the Rafinesque entries in groups with which they are familiar, with a view to detecting errors in reductions and possible omissions. Among these are Mrs. Agnes Chase of the Smithsonian Institution who examined all of the Gramineae

entries, Doctor S. F. Blake of the Bureau of Plant Industry, U. S. Department of Agriculture, who checked the Compositae entries, Doctor F. P. Pennell, Academy of Natural Sciences of Philadelphia, who handled the Scrophulariaceae, Doctor Mildred Mathias and Doctor Lincoln Constance, University of California, who checked the Umbelliferae items, the latter also checking the Hydrophyllaceae entries, Doctor R. E. Woodson, Jr. of the Missouri Botanical Garden, who checked the Asclepiadaceae, Doctor T. G. Yuncker of Purdue University who examined the entries in Cuscuta, and Doctor Donovan Correll and Mr. Charles Schweinfurth, Botanical Museum, Harvard University, who assisted in reference to certain Orchidaceae items. As entries were noted that were thought to appertain nomenclaturally to species that occur within the range covered by Gray's Manual, these were called to the attention of Professor M. L. Fernald of the Gray Herbarium, who critically considered each case. Others who have assisted include Doctor W. H. Camp and Doctor H. L. Moldenke, New York Botanical Garden, Mr. C. A. Weatherby, Gray Herbarium, Mr. E. P. Killip, Smithsonian Institution. Staff members of the Arnold Arboretum who have assisted on special problems include Professor Alfred Rehder, Doctor I. M. Johnston, Doctor C. E. Kobuski, Mr. E. J. Palmer, Doctor C. K. Allen, Doctor L. M. Perry, Doctor Leon Croizat, Mrs. Lazella Schwarten and Mr. V. C. Asmous.

Finally I wish to express my appreciation to the numerous friends of the Arnold Arboretum whose generous responses to the 1946 appeal for a Rafinesque publication fund rendered the issue of this volume possible.

March 30, 1949

E. D. MERRILL

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# INTRODUCTION

"Woe to you, when all men speak well of you, for so did their fathers to the false prophets," Luke VI. 26. Perhaps this Biblical text does not apply to what follows, for no taxonomist who concerns himself with complicated problems of nomenclature has any right to expect that all of his colleagues will agree with all of his conclusions. Some have been highly critical of certain of my findings, and in publishing their dissenting views have doubtless derived as much pleasure in so doing as did I in reaching my own conclusions, which admittedly were in error in some cases. What one normally attempts to do is the best that one can on the basis of the data available to him; sometimes the critics have access to additional data, sometimes not.

These nomenclatural discussions often tend to be verbose and are usually of only academic interest even if individuals occasionally make emphatic statements under the assumption perhaps that their conclusions are the only correct ones. In this category is Gleason's 1 recent plea in support of the commendable idea that well-known names should be retained. He devotes somewhat more than eight pages of text to the discussion of four specific cases, taking strong exception to the conclusions of Fernald, Rehder, and Rosseau. He might take just as strong a stand against my recent change of the technical name of the allspice 2 (Pimenta officinalis Lindl.) which now becomes P. dioica (Linn.) Merr., this change being in strict accordance with the priority rule. Perhaps on the basis that Linnaeus erred in describing Myrtus dioica Linn, as dioecious when the specimens actually before him had perfect flowers, not male and female ones on separate plants, one might argue that an error of this type would invalidate such a binomial as Myrtus dioica Linn. There is no warrant for such an assumption. I heartily agree that it is most undesirable to change the technical name for such a well-known economic plant as the allspice which for a century and a quarter has in general been known under the Lindleyan epithet.

In the four cases discussed by Gleason one may accept his conclusions and retain the specific names which he advocates, or one may accept the names adopted by the three botanists to whose conclusions he took exception. In so far as the species involved are considered in this work I follow Fernald and Rehder, with perhaps a mental reservation that both may have been in error.

In discussing the general problems associated with a consideration of modern investigations of the work of early botanists, I have previously 8 expressed my opinion

"I know that I have been subjected to published and spoken criticism by various botanists working on problems involving species described by Rumphius, Blanco, Llanos, Burman, Osbeck, and Loureiro, particularly when my conclusions have shown the necessity, under the prevailing rule of priority, of displacing a widely used binomial in favor of an earlier one in accordance with the principle of priority. On the publication of my study of Loureiro's genera and species, a former associate who knows little or nothing about the problems involved, is reported to have expressed the opinion that it ought to be suppressed! Why not go the whole distance and suppress Loureiro's original work as well as the publications of all botanists whose species are not actually represented by extant types, including even the high percentage of the Linnaean species that fall in this category? We should at least be logical. In some cases pages of print have been used to show, in great detail, how my conclusions cannot possibly hold; and in general the argument contra is no more convincing than the original argument pro. In any case of disagreement the position of the dissenter could have been stated in a very few words rather than perpetrating pages of mere verbiage regarding what, after all, are really very minor and really inconsequential points.'

The Biblical text quoted at the beginning of this discussion certainly does not apply to Rafinesque, for very few who knew him personally, and no one who is familiar with his super-erratic published work could commend either his methods or his published results. No matter what personal opinions of this Index Rafinesquianus may be, or even the propriety of preparing the text, it is a bibliographic task very long overdue.

### UNEASY CRITICS

I have been mildly amused by statements repeated to me, said to have been made by this or that contemporary. I suspect that in some cases the criticisms were due to an uneasy feeling on the part of John Doe or Richard Roe, on learning of my contemplated excursions into the Rafinesque field, that perhaps they may have slighted their own bibliographic obligations by ignoring his work. They may insist that their own conclusions are correct and that these should be accepted by others, even as Rafinesque maintained this attitude persistently in reference to his own work.

Yet they blandly disregard the fact that in ignoring the validly published names of Rafinesque, their contemporaries and successors may perhaps find as much justification in ignoring or modifying the conclusions of those who object to Rafinesque and all that he proposed. There is much evidence to indicate that many systematic botanists have ignored the proposals of the strange character on whose diffuse publications this work is based, or have glossed over his work in a most

<sup>8</sup> Merrill, E. D. A Generally Overlooked Rafinesque Paper. Proc. Am. Philos. Soc. 86: 72-90, 1942 (p. 83).

<sup>&</sup>lt;sup>1</sup> Gleason, H. A. The Preservation of Well-Known Binomials. Phytologia 2: 201-212. 1947.

<sup>2</sup> Merrill, E. D. The Technical Name of Allspice. Contr.

Gray Herb. 165: 30-38. fig. 1. 1947.

perfunctory manner. I have been accused of wasting my time by one who naively admits that he knows all about these Rafinesque names, which is really taking in considerable territory; and others express dire misgivings with no knowledge of what was planned and what is now effected. One might rather safely predict that one review may consist of three words: "Adds to synonymy"; this it does in no uncertain manner. There are those who elect to follow the easy way and they will doubtless sympathize with James Britten's comment, Jour. Bot. 59: 184. 1921, on Pennell's discovery of the unlisted Rafinesque generic names that were published in the Autikon Botanikon (1840): "We do not think botanists generally will congratulate Mr. Pennell or themselves on the discovery." Pennell listed 84 overlooked generic names; what would Britten say to the extraordinary list of 740 in the same category included in this Index Rafinesquianus?

It is suspected that these uneasy critics believed that it was my objective to make an intensive study of all the Rafinesque botanical outpourings along the lines of my earlier somewhat intensive studies of the works of Rumphius, Burman, Osbeck, Blanco, Llanos, Loureiro, and Houttuyn, to say nothing of those of early authors nearer the home scene, such as Bartram, Eaton, Muhlenberg and Chapman. They doubtless thought that I would let the nomenclatural chips fall where they might, and that in doing this would make a great many changes in the currently accepted names of plants on the basis of priority, perhaps modified only by the official list of conserved generic names. I propose no new names in this work because I personally do not believe that indices, encyclopedias, dictionaries, and even descriptive local floras are proper vehicles in which to publish them. I have, however, published one preliminary article in which a few changes in names, ten in all, are proposed.4 The surprising thing is that in view of the large number of new names proposed by Rafinesque, and the relatively early dates of their publication, the first four decades of the last century, that so very few changes in nomenclature are indicated.

I have accordingly merely prepared the list of new names proposed by Rafinesque, as far as I was able to locate them, leaving it to contemporary and future botanists to accept or reject a Rafinesque name in accordance with their individual judgments; and if they elect to replace a currently used generic name by an earlier Rafinesque one, then it is they who will have to transfer the specific names and become responsible for them under the newly accepted generic name. A glance at the entries on page 20 will show that with the usually accepted concepts as to generic limits, as expressed in standard treatments of families and genera plus a certain number of proposed minor generic segregates, there are about 90 cases where Rafinesque's generic names should be adopted in place of currently accepted ones that were published at later dates by

<sup>4</sup> Merrill, E. D. Nomenclatural Notes on Rafinesque's Published Papers 1804-1840. Jour. Arnold Arb. 29: 203-214. 1948.

other authors; and if one wishes to follow the precepts of the New York school as developed by Messrs. Britton, Rydberg and Small and accepted by Rose and others, by subdividing the larger and admittedly collective groups such as Caesalpinia, Bauhinia, Mimosa, Cassia, Acacia, Euphorbia, and other large genera, the number of "new" generic entities from Rafinesque alone would be increased to approximately 170. If one wished to do so one could, under the tenets of the International Code of Botanical Nomenclature, change the names of approximately 2000 species of plants by rejecting certain currently used generic names, accepting the earlier ones of Rafinesque, and transferring all of the binomials involved. It is anticipated that this situation will be taken care of at the next International Botanical Congress by officially rejecting many of these earlier and thus offending Rafinesque generic names; in some cases as many as 200 binomials are involved in individual generic groups.

### THE ORIGINAL PLAN

It was never my intention to make an intensive study of the Rafinesque proposals other than to try to indicate, as far as this could reasonably be done, what the equivalents of his numerous new genera and new species were in terms of modern nomenclature. Certainly an index of this type is not the place in which to publish new names and if any of the latter appear in the body of the text, this would be merely by inadvertence or oversight. Even had I elected to make such an intensive study I was clearly not equipped by either knowledge or experience to accomplish a creditable task. In handling the numerous Rafinesque problems one has literally to consider the entire world flora, for in his various publications he named and described plants from all the continents and from the larger insular areas, including genera and species from the tropics of both hemispheres, the north and south temperate zones and even from subarctic regions. In comparison with this Rafinesque project intensive studies of Blanco's Flora de Filipinas, Loureiro's Flora Cochinchinensis, or Rumphius' Herbarium Amboinense were relatively simple because of the restricted areas covered by those authors, essentially the Philippine Islands, parts of Indo-China and adjacent China, and the Island of Amboina.

The objective, now attained, was to list the new generic, subgeneric, specific, and varietal names published by C. S. Rafinesque, the most erratic botanist of all time, over a period of nearly four decades, closing with his death in 1840. It is not an apology for Rafinesque, nor is it an argument in favor of any general acceptance of his propositions. It has been known for many years that there were a great many validly published but unlisted technical names of plants in various of Rafinesque's publications. Considering the nature of his published works, the obscure places of publication of many of his papers, and their non-availability in many of the more important botanical centers

of the world, the surprising thing is, perhaps, that so many of his new names were detected and are listed in standard indices.

# THE BEARING OF THE HOMONYM RULE

Because we do have a definite homonym rule, and for no other particular reason, it was decided that the time had come when the task should be undertaken. Manifestly the work should have been done a half century earlier, but it is perhaps fortunate that no botanist of that period could find the necessary time to compile the data. The extremists who elected to follow the American code, one of the basic tenets of which was strict priority in publication, were too busy with their own foibles and their own taxonomic problems to bother very much with Rafinesque, and the conservatives were not interested. Thus it was that the former, and we can now say fortunately, missed the magnificent opportunity of displacing many scores of currently used generic names by different and validly published ones that Rafinesque had proposed at earlier dates than those which were, and still are, accepted. Personally, no matter what contemporary botanists may think about the usefulness of this work, or even the propriety of publishing it, I believe that it is a reflection on American botanical bibliography that the task was not accomplished a half century earlier.

In view of a resurgence of interest in Rafinesque in recent years an attempt has been made to evaluate his work from a botanical standpoint. The results are in no way flattering to Rafinesque. One of the reasons for doing this is the gross misinterpretation of the significance of Rafinesque's work by certain authors, at least one of whom (p. 50) should have been in a position, from his own botanical experience, to realize the utter falseness of the position he took.

### DEVELOPMENT OF INTEREST IN RAFINESQUE PROBLEMS

My adventures with Rafinesquiana commenced in 1940 when I accidentally located a previously overlooked Rafinesque botanical paper that had been published somewhat over a century earlier and which contained a considerable number of validly published but unlisted new names for North American flowering plants.<sup>5</sup> Noting that this paper had been overlooked by Fitzpatrick <sup>6</sup> and by all other bibliographers, other than the editors of the *Catalogue of Scientific Papers*, published by the Royal Society of London (1867-1925), it was made the subject of a special consideration in 1942.<sup>7</sup>

<sup>6</sup> Fitzpatrick, T. J. Rafinesque. A Sketch of His Life With Bibliography. 1-241. pl. 1-32. 1911.

<sup>7</sup> Merrill, E. D. A Generally Overlooked Rafinesque Paper. Proc. Am. Philos. Soc. 86: 72-90. 1942.

## BIBLIOGRAPHIC ASPECTS

Fitzpatrick's very critically prepared Rafinesque bibliography, containing as it does 939 titles of published Rafinesque papers, with data on various unpublished manuscripts, letters, etc., and a Bibliotheca Rafinesquiana listing 134 papers by other authors about Rafinesque, proved to be of the very greatest assistance. Without this very exhaustive treatment it is doubtful if I should have had the courage to initiate work on this project, and without it I should undoubtedly have overlooked important papers published in outof-the-way places. Rafinesque was a past master in publishing technical papers in periodicals where normally one would not look for such material, and he further published an extraordinary number of privately printed contributions ranging from small pamphlets to large volumes. Most fortunately Doctor Charles S. Sargent, in building up the remarkably rich library of the Arnold Arboretum,8 assembled a noble series of Rafinesque publications, unmatched, as far as the actually published Rafinesque botanical papers are concerned, in any other library. It is, in fact, the largest and most important assemblage of Rafinesque publications to be found in any single library, for it contains a great many of his works in fields entirely outside of botany. There are only a very few centers where it would be possible to compile a work like this Index Rafinesquianus, and of the three other possible centers in North America, all reasonably rich in Rafinesque publications, each one lacks many items that are available here. Thus in the botanical field, of all of the very numerous known Rafinesque botanical papers it became necessary to seek in other places only a very few items. The only known copy of Rafinesque's unimportant American Florist (1832) is in the Yale University library; the only known copy of the suppressed Rafinesque Western Minerva or American Annals of Knowledge and Literature (1821) is that preserved in the library of the Academy of Natural Sciences of Philadelphia. Lacking here was also the second volume of Rafinesque's Specchio delle scienze (1814), the essential data from which were secured through photostats of parts of the volume in the above Philadelphia library; but a nearly complete unbound set of this work, with its original fascicle covers, lacking only the last number of volume two, was acquired by mere chance in 1946. For pages 49 to 80 of the Herbarium Rafinesquianum (1833), the pertinent data were kindly supplied by Doctor A. D. Cotton of the Royal Botanic Gardens, Kew, Surrey, England, as the only known complete copy in American libraries was not available during the war years. For papers published in the Saturday Evening Post I consulted the individually incomplete sets in the Widener Library of Harvard University, Boston Public Library, and the Library of Congress, and was thus fortunate in being able to examine every number for the years 1827 to 1832, the period that

<sup>8</sup> Merrill, E. D. Rafinesque, With Notes on His Publications in the Harvard Libraries. Harvard Libr. Bull. 2: 5-21. 1948.

<sup>&</sup>lt;sup>5</sup> Rafinesque, C. S. Remarques botaniques sur quelques plantes de l'Amérique Septentrionale, dans les quatre premiers volumes du Prodromus ou Synopsis plantarium de de Candolle. Act. Soc. Linn. Bordeaux 6: 261-269. 1834.

Rafinesque published therein. For the Rafinesque papers published in the Kentucky Gazette (1822) I also had to depend entirely on the set in the Library of Congress, but unfortunately a few pertinent numbers are missing in that set. For the Rafinesque botanical papers published in the Western Review and Miscellaneous Magazine (1819-21) the sets in various Boston and Cambridge libraries were consulted. However, it was possible to check the vast majority of all Rafinesque entries listed in this index within the walls of the one library where the work was compiled. This last statement may be interpreted as an appreciation of the sagacity of the first director of the Arnold Arboretum, Charles Sprague Sargent, in building up its remarkable library, and especially for his foresight in acquiring rare items and in specializing in certain fields, one of these being Rafinesque's publications and Rafinesquiana.

### ORIGINAL ESTIMATES

When I rather lightheartedly took up this Rafinesque compilation in 1942 I had little concept of the amount of time and energy that its completion would entail, although I was, at that time, somewhat familiar with many of Rafinesque's publications. My first estimate was that there might be perhaps 1200 unlisted Rafinesque generic and specific plant names; later the number was raised to 2500. When I made the last estimate I was not prepared even to think that the list might approximate 3300 names that up to this time have remained unlisted in our standard indices. See p. 17.

No one can say with confidence that all of Rafinesque's widely scattered published papers have been located. Witness the fact (p. 13) that in the few years that I have devoted a part of my time to an investigation of Rafinesque problems about 43 (or 95, depending on what constitutes a title) previously unlisted Rafinesque papers have been located, some of which contain new technical names for plants.

### THE NEED OF INVENTORIES

Doctor L. H. Bailey, in a paper entitled Botanical Science and Its Applications, read at the fall meeting of the American Philosophical Society, October, 1946, spoke of the work of Linnaeus in his Species Plantarum and in his Systema Naturae as probably the greatest inventory devised by man in the field of biology, his argument being that without an inventory there is no valid discussion of objects. In my mind it is high time that we have an inventory of Rafinesque's nomenclatural proposals, and this paper is an attempt to provide it. Clearly had such an inventory been made earlier Rafinesque would not have been penalized to the extent that he manifestly was by his successors. Nor would the numerous botanists who followed Rafinesque have made so many grievous errors in naming and describing many scores of new genera and new species that Rafinesque had already described under different and incidentally valid names. The time lapse varies from

a year or two, or sometimes only a matter of weeks or months, to a century or more in favor of Rafinesque. In speaking of Rafinesque Bailey characterized him as:

"Energetic, voluminous, nonconformic. From him we inherit a divergence that has profoundly affected the course of botany and other biologic science in this country. Caution was not an attribute of Rafinesque, as it was of John Torrey and Asa Gray and, for that matter, of Linnaeus. His practice touches a man's freedom to describe a new species, confused in his case by careless and undocumented work. To him Gray was a 'lumper' and to Gray Rafinesque was a 'splitter.' The two words are not ornaments to our botanical history, as if the author were under obligation to defend himself if he described a new species. Yet to this day some of our North American genera have remained a sealed book. We do not adopt the method of Rafinesque; we accept much of his work because we have to. It is a strange commentary on biological progress that through the generations we have resisted the numbers of species yet have accepted with applause the results of morphological and physiological and genetical studies."

### STRANGE ATTITUDES

Some botanists believe in thorough bibliographic work, others apparently do not. I quote from Gleason's recent paper mentioned above:

"The code does require that they [the taxonomists] use the oldest known legitimate epithet, not the oldest one as yet unknown (italics mine). If they insist on looking up hitherto unknown names, then they should be consistent and investigate all encyclopedias, all books of travel, all textbooks of horticulture, all back volumes of the Congressional Record, all printed literature in every language, and thereby be sure that they have really found the oldest name."

I find no warrant whatever in the code for "not the oldest one as yet unknown." One may observe that some thousands of unlisted names occur in strictly botanical literature as is demonstrated in this *Index Rafinesquianus*; and generally speaking unlisted generic and specific names represent entities "as yet unknown." One might interpret Gleason's statement to mean that all such names could be ignored, merely because through clerical and botanical oversight they have remained long unlisted and hence for the most part "unknown."

He might mave included nurserymen's catalogues, for many of these do contain new plant names, even if the Congressional Record, most general books of travel. most textbooks of horticulture and most of the printed literature in all languages are sterile fields as far as new plant names are concerned. But all botanists recognize such general encyclopedias as that of Rees (1802-1820), the Penny Encyclopedia (1833-1858), and a few others, some encyclopedias of horticulture, and certain garden dictionaries as legitimate sources of new plant names, and most of the new names published therein are actually listed in our standard indices. If an occasional new name that first appeared in one of the above works was overlooked when Index Kewensis was prepared-and there are in such works certain overlooked and hence as yet unlisted plant names—no reason exists for not recognizing them should they be older than currently used epithets; in fact no provision has ever been made for rejecting such fugitive names.

Actually every botanist who follows the code tries to select the oldest legitimate name for each species. There is nothing in the rules that would eliminate the oldest unknown (i. e., unlisted) name; but no one's ignorance or carelessness should set a standard. Again merely because an individual will not take the time to do thorough bibliographic research is no excuse. Article 16 of the code is categorical in that it provides that every group must bear the earliest name consistent with the rules. This, far from permitting an author to content himself with what he happens to know, implies some obligation on his part to do the necessary and desirable bibliographic research. Any other course merely places a premium on carelessness.

Personally I am inclined to interpret the Gleason plea as one in support of superficial bibliographic research. Would not a simpler solution be the adoption of a new provision in the International Code of Botanical Nomenclature to the effect that any binomial which has been accepted as valid for, let us say, a century or more, may not be replaced by an earlier published one? Such a rule would negate the, in general, equitable rule of priority, in part, but it would also eliminate the very numerous Rafinesque names which I have unfortunately unearthed, as far as these are actually earlier than currently used ones.

Neither am I impressed when a modern author apparently uses the term "outmoded literature" as a part of an argument to support a more recent binomial against an earlier Rafinesque one. In 1924 Ames 9 published a standard enumeration of the orchids of the United States and Canada, each admitted species being provided with a rather full synonymy; it is assumed that a serious attempt was made to account for all synonyms. Apparently because certain binomials based on material from certain parts of the United States were unlisted in Index Kewensis, a number were overlooked. Fernald 10 in one of his papers published in Rhodora discussed some of these fugitive binomials, but Ames 11 disagreed with him regarding the status of Spiranthes tuberosa Raf. The former may have erred in his interpretation of Rafinesque's species, and Ames may be correct in his contention. It is, however, rather curious that, perhaps as a sort of defence against his earlier oversight, he accused Fernald of resurrecting "from outdated literature the obscure species Spiranthes tuberosa Raf. (1833)." It were better had he not used the term, for as long as early authors followed certain specific tenets, as Rafinesque did in this case, there is in botanical literature no such a category as "outdated." We may admit that with the abundant material now available we could perhaps accomplish a much better task than did some of our predecessors, but it is egotistical in the extreme to use the term "outdated" as a part of an argument to cover up one's own shortcomings.

## INDEX KEWENSIS

The preparation and publication of this Index Rafinesquianus should in no sense be considered as a criticism of the indispensable Index Kewensis. The fact that a considerable number of Rafinesque's botanical publications were not and for that matter are not now available in London or in European libraries, explains some of the omissions. This applies particularly to those Rafinesque works issued in the decade between 1830 and 1840 in Philadelphia. Rafinesque's editions of his privately published works were small, distribution in his lifetime was limited, and most of the undistributed stock was destroyed following his death. Most or all of the few American botanists of that time considered that the erratic Rafinesque's published works were valueless, and hence considered that they could be ignored, which they did to a remarkable degree.

In my earlier years I brashly published a list of overlooked and unlisted binomials with 123 names in my Interpretation of Rumphius' Herbarium Amboinense, pp. 46-50. 1917, these having been located while studying Rumphian and Blancoan problems with only the very limited library facilities then available in Manila at my disposal. After that initial list I commenced to record additional overlooked names. From time to time these were transmitted to Kew for checking and ultimate inclusion in that supplement to Index Kewensis currently under preparation. My estimate of such transmissions is about 1200 names; as a matter of some interest those detected and listed in the war years alone, 1939-45, exceeded 500. However, this Index Rafinesquianus project became so involved, and its scope so great that it seemed best in this case to list all of his new names, all places where the names appeared in Rafinesque's published works, and further to indicate those that were unlisted and those where corrections were indicated.

### UNLISTED TECHNICAL NAMES

If the working taxonomists in general had adopted the policy of reporting unlisted binomials as these were detected then doubtless the coverage in Index Kewensis and its ten supplements would have been much more complete than is actually the case. It would also have simplified the work of their contemporaries and successors. Everybody will admit, in view of all factors, that it is highly desirable that our one standard index should be as complete and as accurate as it is possible to make it. I cite here a case in point. It was the practice of the late Doctor John K. Small to include at the end of his various volumes on the flora of the southeastern United States, on which region he was the outstanding authority, a list of all the new names that he published in each volume. This is a convenience to the two or three living bibliographers who must concern themselves with listing new names with references to their places of publication, but is otherwise rather insignificant. But when an author does accept an earlier and as yet unlisted but validly published name, and

<sup>9</sup> Ames, 0. An Enumeration of the Orchids of the United States and Canada. i-viii. 1-120. 1924.

<sup>10</sup> Fernald, M. L. Rhodora 48: 5-13 1946.

<sup>&</sup>lt;sup>11</sup> Ames, O. Commentaries on Spiranthes I. Bot. Mus. Leafl. Harvard Univ. 13: 17-30. pl. 1-3. 1947 (p. 17).

includes it in his text without a reference to the place where it first appeared, it is indeed exasperating when one is forced to search the literature to complete the record. An excellent example is Peltandra glauca (Ell.) Feay; Small, Manual of the Southeastern Flora 246. 1933. This is not listed in *Index Kewensis* and curiously its name-bringing synonym, Caladium glaucum Ell. Sketch of the Botany of South Carolina and Georgia 2: 631. 1824, is also not listed. Actual publication of Peltandra glauca was by Feay in Wood's Class-book of Botany 669, 1861, a most unexpected place, there based on Caladium glaucum Ell., this also unlisted. Yet on pages 1503 to 1509 of his work Small lists nearly 260 new names that appeared for the first time in that volume—as if the actual publication of new names was an end in itself; he never mentioned the original places of publication of the two overlooked binomials above discussed. It has been pointed out elsewhere, Bartonia 24: 28. 1947, that the names of various described species, often universally accepted by all botanists, have been recognized for many decades and yet appear in no standard index, such as the two mentioned above, Polygonum natans Eaton (1822), Rumex hastatulus Baldw. (1817), Salix obovata Pursh (1814), and Arabis hastata Torr. (1818). It is no wonder that taxonomists are frequently charged with deliberately making transfers so that the authority for a binomial may appear as Fulano de Tal. Yet all taxonomists appreciate the fact that changes of names are inevitable if one elects to follow the provisions of the International Code of Botanical Nomenclature, as long as the concept as to generic limits ebbs and flows, and as long as the essentially equitable priority and homonym rules prevail. The productive botanist must of necessity propose new names on occasion whether he desires to do so or not, and for this he should not be censured.

Some of Rafinesque's new names, which were overlooked when Index Kewensis was compiled, were included in later supplements to that indispensable work, notably those that appeared in his papers published in the Cincinnati Literary Gazette in 1824, and the new generic names with their type-species from the Autikon Botanikon (1840), the latter compiled from Pennell's paper of 1921; but a great many new binomials in the Autikon Botanikon still remained unlisted as no copy of it was available at Kew. There are other overlooked volumes each with many new names such as the Herbarium Rafinesquianum (1833), and the Good Book (1840).

In spite of the fact that certain papers in the Good Book have been reissued as facsimile reprints in modern times, reprinting alone does not insure the inclusion of the names therein published in any standard index. I refer to the American Midland Naturalist reprints of Rafinesque's The Natural Family of Carexides, and Scadiography of 100 Genera of Ombelliferous Plants, both originally printed in 1840 and both republished in 1913; they contain a large number of new generic and specific names, originally published more than a century ago and still unlisted in spite of the 1913 reprints.

Another striking case is the Rafinesque paper published in volume eight of Loudon's Gardener's Magazine, in 1832, republished by Schlechtendal in Linnaea in 1833, and again by Britten in the Journal of Botany in 1900; and yet the few new names appearing in this thrice-published paper are still unlisted.

Until I accidentally encountered an unlisted and hence ignored Rafinesque paper, published in 1834, I was not prepared to discover in certain basic and other secondary works appertaining to the flora of the United States, issued between the years 1788 and 1897, a relatively large number of validly published but unlisted technical names of plant species. Because these names were unlisted, most of them had escaped the attention of students of the North American flora and of monographers as well. Studies completed on the works of Bartram (1791), Eaton (1817-1840), Muhlenberg (1793-1818), Wood (1845-1881), and Chapman (1860-1897), 12 plus the Rafinesque investigations, yielded a total of about 750 validly published but unlisted new generic names and about 3195 new binomials in the same category, or a grand total of nearly 4000. Further these studies demonstrated the fact that other still unlisted new names appear in such classical works as those of Michaux, Pursh, Nuttall, Elliott, Torrey, Asa Gray, and other botanists who concerned themselves primarily with studies on the plants of North America in the nineteenth century.

# CERTAIN RAFINESQUE BINOMIALS NOT LISTED IN THIS INDEX

It is a rather sad commentary on certain editorial practices, and on the work of certain authors, that one notes as published in our time various new Rafinesque binomials proposed by him in letters written more than a century ago which appear in non-botanical literature as some of these old letters are published. There is every reason why certain old letters should be published but in editing them there are certain tenets which should be observed. In the case discussed below, where new Rafinesque binomials are involved which I have not listed, it is regrettable that some competent taxonomist familiar with plant names was not consulted in order to obviate various gross errors. Certain it is that Rafinesque never wrote certain names and certain titles of botanical works in the form in which they were printed.

In an interesting paper on Rafinesque 18 published

— Unlisted Binomials in Chapman's Flora of the Southern United States. Castanea 13: 61-70. 1948.

<sup>&</sup>lt;sup>12</sup> Merrill, E. D. In Defence of the Validity of Bartram's Binomials. Bartonia 23: 10-35. 1945.

<sup>——— &</sup>amp; Reeder, J. R. New Plant Names Published by Amos Eaton Between the Years 1817 and 1840. Op. cit. 24: 26-79. 1946 [1947].

<sup>—</sup> Unlisted Names in Alfonso Wood's Botanical Publications. Rhodora 50: 101-130. 1948.

New Binomials in the Publications of Henry Muhlenberg. Ined. <sup>18</sup> Perkins S. E., III. Letters by Rafinesque to Dr. Short in the Filson Club Archives. Filson Club Hist. Quart. 12: 202-239.

in 1938 eleven letters written by him between the dates of July 17, 1818 and November 5, 1834 are published. In these various botanical binomials appear, some actually indicated as representing new species, and, incidentally, species which Rafinesque never otherwise considered. These names being strictly nomina nuda, and appearing in definitely non-botanical literature, I have, in general, ignored them as being unworthy of consideration. It is, however, extraordinary how many errors appear in the spelling of some of these technical names, errors for which Rafinesque cannot be held responsible. The author states: "Many of his spelledout words in his hastily written letters are almost beyond deciphering. Each one of the few that could not be deciphered is represented by a question mark in brackets." It is to be regretted that these new binomials were not eliminated entirely and their place taken by a line of dots or by a long dash, that is, by actually cancelling these manuscript names when the letters were published. This same statement applies to certain botanical titles which contain grossly misspelled words. Rafinesque's chirography might, in places, be difficult, but this is no excuse for making him appear more careless than was actually the case.

We note such strangely corrupted generic names as Capicetora, Hedyclarum, Heptallor, Esochitld, Panox, Ararum, Minotropa, Puduslima, Pyreatherum, and Thedium, among others; and such erroneously spelled specific names as deltifolio, urticifolio, rupertris, scrotina, sphacdata, fruticopa, pennila, torviler, serpetosa, and others of this nature. It is usually very evident what Rafinesque intended, but whoever transcribed the names merely proved that he did not know botanical usage or botanical terminology. Equally gross errors are made in certain cited authors and titles, such as "Herbanium" [Herbarium] Rafinesquianum, Linnaeus' [Opera] omnia, and "Gonelie" [Gmelin] Systema Vegetabilium.

One other recent case occurs to me where the author in preparing an early manuscript (1815-20) for the printer perpetrated similar gross errors. This is outside of the Rafinesque field and is hence not further considered at this time. I merely mention the reference 14 for the benefit of those who may be interested in considering what strange things can happen to printed binomials when these are transcribed from old and not always too clear handwriting; and yet every gross error made by both of these modern authors could very easily have been avoided.

### A Modern Botanist's Contribution

To those who reproduce old manuscripts on descriptive botany—and there is every reason why some of these should be reproduced simply because of their historical importance—such previously unpublished technical names as may appear in the original copy

14 Davis, R. B. An Early Virginia Scientist's Botanical Observations in the South. Virginia Jour. Sci. 2: 132-139. 1942. should be cancelled. A series of dots or a long dash to take the place of the "new" names would detract nothing from the real value of the paper and would avoid adding to our already over-burdensome synonymy. A relatively recent case which occurs to me is the publication by H. N. Ridley 15 of an old Hunter manuscript on the flora of Penang. This was written in 1802 or 1803, and if it had been published then, many of Hunter's new binomials would have been the accepted ones for individual species; most of his descriptions are ample, and it is possible from these definitely to place many of the species which he then proposed. But the publication of their technical names, more than a century after the manuscript was prepared, merely adds to synonymy, for in the interim undoubtedly all of the species which Hunter considered to be new at the beginning of the last century, have in the meantime been described by other authors under other names.

Even Ridley, who correctly reduced about half of Hunter's binomials as synonyms, naively says "there are several I have not been able to guess at from description"; and some he did not even guess at, leaving the burden of identification to others in spite of the fact that he then probably knew more about the intricacies of Penang botany than any other individual ever has. Half of Hunter's names of 1802 or 1803, actually published by Ridley in 1909, represent species of doubtful status, for Ridley made only about 20 definite reductions to species named and described by later authors. He indicated about 10 more as probably or possibly representing this or that species, leaving about a dozen with no suggestions as to what might be represented, except that in some cases the genus was indicated. Here we have about 40 old binomials which never should have been published, half of which for an indefinite period will probably appear in that unflattering category, if mentioned at all, of species incertae sedis. Most of Hunter's binomials in this 1909 paper are listed in supplement four to Index Kewensis. The following unimportant ones were overlooked by the compilers of that work:

Ardisia \*nutans Roxb. ex Hunter, Jour. Straits Branch Roy. As. Soc. 53: 77. 1909, non A.DC. Penang.

Mespilus \*pomifera Roxb. ex Hunter, op. cit. 95. Penang=

Eriobotrya japonica Lindl.

Myristica \*oblonga Hunter, op. cit. 119. Penang. Pterospermum \*parvifolium Hunter, op. cit. 103, non Miq.

Not included in the supplements to Christensen's Index Filicum are:

Acrostichum \*calamarium Hunter, op. cit. 124. Penang. Blechnum \*longifolium Hunter, op. cit. 126. Penang. Blechnum \*petiolatum Hunter, 1.c. Penang. Hemionitis \*pinnatifida Hunter, op. cit. 125. Penang.

### THE BASIC OBJECTIVES OF THIS INDEX

In this index a serious attempt has been made to detect and to list all of the published Rafinesque tech-

15 Hunter, W. Plants of Prince of Wales Island. From a MS. in the British Museum. Jour. Straits Branch Roy. As. Soc. 53: 49-127. 1909. Edited by H. N. Ridley.

nical names of plants in all categories other than his names for major groups above the status of the genus. At the same time an attempt has been made to list each name wherever it may appear in Rafinesque's widely scattered published papers, so that the index is more than merely a list of names with their original places of publication. It is actually an index to all Rafinesque references in all of his own botanical publications. An attempt has been made to list also those Rafinesque names that other botanists actually published, although no critical search has been made of the vast literature of systematic botany with the view to locating all of these; most such names are already included in Index Kewensis. These names were for the most part those appearing on herbarium specimens that Rafinesque distributed, but names which, for one reason or another, he never published. Occasionally one notes strange cases of casual publication such as the hitherto unlisted Nelis repens Raf. It occurs in Lindley's Collecteana botanica sub pl. 25. 1821 (Goodyera pubescens R. Br.) as: "We believe M. Rafinesque has somewhere called this plant Nelis repens." I have been unable to locate any other consideration of this name. It is suspected that it was taken from a Rafinesque letter, for the latter was in correspondence with Lindley.

A rather serious attempt has been made to determine the status of the very numerous new generic names proposed by Rafinesque. In most cases it has been possible to indicate what he intended to characterize in spite of his usually very sketchy and incomplete descriptions, and his practice of ignoring the importance of documentation; with him documentation was reduced to the very lowest level or was ignored. The generic equivalents or reductions are indicated; many of these reductions differ from those listed in standard works.

As to the Rafinesque binomial-reductions suggested previous to 1900, many of these have been rejected for one reason or another. In the case of more modern and critical studies the conclusions of competent specialists have been accepted, and frequently the desirable bibliographic references have been added. Somewhat more than 1500 Rafinesque binomials appear in the list with no suggestions as to what species of this or that earlier or later author may be represented. It will, of course, be understood that usually these entries do not indicate that the binomials represent valid species, but rather that intensive studies of the descriptive data have not been made by competent authorities. Undoubtedly the vast majority of these unreduced binomials represent species described under other names previous to the Rafinesquian eruptions. Occasionally, here and there, there will be a solid grain among the chaff, as Fernald has expressed it, which should be salvaged. Clearly, however, and largely because of Rafinesque's carelessness and brevity, many of these proposed "new species" never can be placed with certainty for the simple reason that he failed to mention their essential differential characters. It is not, in general, recommended that currently used binomials be replaced by earlier Rafinesque names which were based on actual specimens no longer extant, unless it can be proved with reasonable certainty that the two different names actually appertain to the same species. More than one-half of the 1500 names that have not been placed are strictly nomina nuda, names which have no standing and are hence to be ignored. The total number of Rafinesque specific names that have been accepted by all or by some of his successors is very small whether under the generic designation indicated by him or transferred to some other generic name by others. The total will not exceed 150, even including Rafinesque specific names that are now accepted as of varietal rank. What a commentary on the nature of Rafinesque's work when it is realized that he actually published about 6700 new binomials! Accepted as of this date are only about .02 percent. The chances of any material increase in acceptance are very small.

## DOCUMENTATION

It has already been noted that in all of Rafinesque's publications documentation is conspicuous by its absence or by its being reduced to an absolute minimum. Even when he published a new name ostensibly by transfer he often failed to cite the name-bringing synonym or merely hinted at it. He has been freely accused of accepting the ideas of this or that author and publishing their views as his own. There is little evidence that leads me to accept these accusations against Rafinesque, but I conclude that he acted in good faith, but all too frequently failed to add the desirable references or credit lines. Thus in no place where he sets forth his striking views on organic evolution, for which he has not been given due credit, does he even hint that these ideas did not originate with him; yet in other places he frankly admits that Adanson originated the ideas in 1763 and thus to Adanson rather than to Rafinesque the credit should be rendered (see p. 47).

In various places in this document (pp. 28, 58) I have cited illustrative examples of Rafinesque's publication of new technical names without or with a minimum of documentation. Too frequently it was his practice to cite a specific name that he placed under a new generic name without indicating its authorship or the namebringing synonym. This involves difficulties in such genera as Carex, Aster, Salix, and other large groups, for not infrequently different species have inadvertently been described under the same specific name by different authors; and in Rafinesque's work, where one wishes to indicate reductions, one cannot always be positive which species Rafinesque had in mind.

In such references as "bot. reg. 343," "bot. m. 3041," "Jaq. hort. 287," "Callic. do Lour," "Rumph, 3, t. 46," "Rheed 1 t. 43," "Lor. do RP.," etc., I have, where necessary, in the body of the text completed the references to volume, page and plate number, and date of publication of such works as the Botanical Register, the Botanical Magazine, Jacquin's Hortus Schoenbrunensis, Loureiro's Flora Cochinchinensis, Rumphius's Herba-

rium Amboinense, Rheede's Hortus Malabaricus and Ruiz and Pavon's Flora Peruviana, etc. Where Rafinesque manifestly erred in citing the wrong volume or plate number, or occasionally when he confused the work of Rheede with that of Rumphius, corrections are made. Such errors do exist, and they have, in some cases, led to strange reductions of certain of Rafinesque's generic names. Thus Karkendela Raf. is actually a synonym of the rhizophoraceous Carallia Roxb., but because of Rafinesque's error in citing the volume number of Rheede, this appears in current literature as a synonym of Musa Linn.

# RAFINESQUE'S OWN SYSTEM OF CLASSIFICATION, AND RULES OF NOMENCLATURE

It should be remembered that Rafinesque actually proposed his own system of classification, devising a name not only for the plant kingdom in his Phytonia, but also names for classes such as Eltrogynia, Mesogynia, Endogynia, Gymnogynia, Phanerogynia, Cryptogynia, Algosia; orders such as Rhodanthia, Perimesia, Monospermia; suborders in Rhodopsia, Oligaria, Adnantheria; and families in Magnolidia, Thalcitridia, Strobilia, Rhamnidia, etc. He, of course, did not originate all of the names that he used, but accepted or adapted many of those proposed by earlier authors.

He also devised his own rules of nomenclature which apparently other botanists never accepted. This explains some of his modifications of earlier proposed generic and specific names. His innovations in the modification of nomenclature, and his attempt to establish a natural system of classification failed, for other botanists and zoologists were not impressed. They consistently ignored Rafinesque's efforts except, here and there, as this or that individual accepted a Rafinesque genus or species. No reason exists for even listing Rafinesque's names for major groups above the genus. His terminology is utterly at variance with that of systems that did prevail, and his terms are scarcely comparable with names for major groups accepted in modern times. For those who may be interested in examining his attempts to establish a natural system of classification, a system that even he did not follow in his larger published works, the four works here listed should be consulted.16

If one examines Rafinesque's works with an unprejudiced mind it is evident that he did have a distinctly uncanny ability in detecting generic relationships, and that in his system of classification he did in

<sup>16</sup> Rafinesque, C. S. Principes fondamentaux de Somiologie ou les Loix de la Nomenclature et de la Classification de l'Empire Organique ou les Animaux et des Végétaux. 1-50 [1-2]. 1814. Palerme.

Précis des Découvertes somiologiques ou zoologiques et botaniques. 1-55 [1]. 1814. Palerme. Reissued in 1948 by offset reproduction. Peter Smith, New York.

Analysis de la Nature ou Tableau de l'Univers et des Corps organisés. 1-224. 1815. Palerme.

—— Flora Telluriana 1: 26-101. 1836 [1837]. Philadel-phia.

many cases bring manifestly closely allied genera into association with their congeners in natural groups or families. Thus in his Amentacea he included *Populus*, Salix, Betula, and Myrica. These are now placed in the Salicaceae, Betulaceae, and Myricaceae, the three families being reasonably close to each other. He should not be misjudged merely because he also included in the same family Platanus of the Platanaceae, Cecropia of the Moraceae, and Pandanus of the Pandanaceae, the latter a monocotyledonous group. Another strange example is his family Mesophoria, consisting of Forskalea, Parietaria, Gnetum, Xanthium, Ambrosia, and Franseria, these genera now being correctly distributed into the Urticaceae, Gnetaceae (a gymnosperm), and Compositae. Still another example is his family Ilexia, in which he placed two utterly different genera, *Ilex*, correctly, and Cordia, the latter belonging in the very different Boraginaceae. These examples are taken at random from his first attempt to arrange the plant kingdom in his proposed new system of 1815.

His later essay on natural classification, forming pages 26-80 of volume one of his Flora Telluriana (1837) is just as inconsistent, for there we find Pinus, Populus, and Ficus placed in one order, the Axanthia; Urtica, Rumex, Ulmus, Laurus, and Protea placed together in another order, the Monospermia; Sapindus, Portulaca, Hypericum and Euphorbia in still another order, the Polymesia; Polygala, Veronica, Justicia, Sesamum, and Mimulus forming the Plasygyria; and Primula, Plantago, Olax, Achras, and Ardisia placed in the Stemesia. There are many more similar illogical arrangements such as the strange alignments of Ephedra and Casuarina forming the Ephedromes; Ficus, Carica, Adansonia? and Pavia? forming the Sicomes; Plantago and Dionaea forming the Scapomes.

It should be remembered that in many cases Rafinesque had no specimens representing the genera he tried to place in his attempt to make a natural arrangement of the major groups, and that he often depended on published descriptions and illustrations. He was scornful of those who made critical dissections of the fruits and seeds, as well as of those who insisted on the finer details of floral structure. One gains the idea that to a considerable degree he was guided by gross similarities; and yet even then it is difficult to understand how he arrived at certain groupings. No European, much less any American botanist, gave the slightest attention to his system, and it, with many others that were proposed in the first half of the nineteenth century, simply went into the discard. Nothing is to be gained by even considering his strange ideas at this time, except, perhaps, as a very minor episode in botanical history; and yet Rafinesque's insistence on accepting a natural system of classification at a time when most of his American associates were pronounced Linnaeists was one of the reefs which wrecked his reputation among his contemporaries, others being his monomania for describing new genera and new species, his brief and sketchy descriptions, his general carelessness in

presentation, and his sometimes caustic criticisms of the work of other botanists.

In these strange tendencies, his contempt for others, frequently expressed in no uncertain language, his inability to get along with his associates in the Elysian field of botany, his unbounded confidence in his own ability, his contention that he was, in the main, always right, and that his critics were wrong; and with absolutely no realization of the fact that he needed access to vastly greater and more comprehensive collections and much larger botanical libraries than were available to him, his efforts were to a very large degree dissipated. He was quixotic in the extreme. One may admire his capacity for work, his persistence in assembling very large collections of natural history material, the eagerness with which he very closely followed botanical publication of his time, and his very extensive correspondence with numerous European and American botanists of his generation. One may give him credit for having an extraordinary mind, even if he was more or less blind to his own weaknesses. Manifestly he had a most extraordinarily wide knowledge of the published literature of botany, yet his varied qualifications availed him not.

One of Rafinesque's faults, when he proposed new generic names based on previously described species of which he had no representative specimen, was his tendency to select on the basis of one or two characters only, ignoring other features. This is well illustrated by Octella Raf. proposed as a segregate from Melastoma Linn., the species with 4-lobed calyces, 4 petals, 8 stamens, and 4-celled fruits. Included in Octella, by suggestion, but not actually published as species of this genus, "types, several octandrous sp. but must all be examined again," are fifteen species of Melastoma, now actually placed in the genera Charianthus D. Don, Tetrazygia L. C. Rich., Clidemia D. Don, Henriettella Naud., Calycogonium DC., Ossaea DC., Melastoma Linn., Miconia Ruiz & Pavon, and Mecranium Hook. f. How far wrong one may go in assuming that all the species in a group having eight stamens may represent a single genus is thus indicated.

# Methods Used in Compiling Data on Which This Index Was Based

The technique that was developed in the preparation of the data on which this Index is based was to compile on half sheets all of Rafinesque's original descriptions and all of his suspected new names with what he published regarding each one. This proved to be faulty, for it developed that Rafinesque had his own ideas regarding orthography and changed many names proposed by his predecessors and his contemporaries at will, usually without any indication of such changes. It would have been better had a slip been written for every technical name used by Rafinesque, no matter how many times it might have been repeated in his numerous publications. It is believed, however, that most of these more or less fugitive modified names were detected and listed when the entries in the first draft were checked on

the original papers. This was done with two objectives in view, to discover possible errors in the names and in the citations, and to locate more or less validly published modified names that might have been overlooked. After the very numerous half sheets were prepared they were arranged in an alphabetic sequence by generic names in the form of an extensive card catalogue from which a strictly alphabetic enumeration was compiled.

# Reasons for Selection of the Form of Presentation

Because of the fact that included in this work are all the Rafinesque references to new names for the cellular and vascular cryptogams, groups not covered in *Index Kewensis*, in preparing the data for publication it was decided to distribute the generic entries by natural groups, and as to the phanerogams, broken down to families. There were other reasons for this, one being the fact that subgenera, sections, and varieties are also included, none of which are considered in *Index Kewensis*.

With the accepted arrangement the specialist considering any particular group with which Rafinesque concerned himself will find in one place all the names, with references, that Rafinesque proposed, whether the names were validly published or not. It may be that occasionally an error has been made in placing this or that Rafinesque genus in the wrong natural family, but it is believed that such errors will prove to be few in number. On the whole the advantages of the system adopted will far outweigh any possible disadvantages.

Because so many of the proposed Rafinesque generic segregates that were entirely correct have been overlooked for so long, and in the interim the same groups have been characterized by other authors under different and later published generic names, it is hoped that the arrangement herein adopted may prove to be a practicable method of avoiding similar future errors. It is not anticipated that the majority of botanists will become infected with the Rafinesquian idea of numerous generic segregates in the larger groups which was so persistently exploited within the past few decades by the New York school. If individuals elect to follow this course it will be well for them to scan these Rafinesque lists. Doubtless in many cases, as Messrs. Britton, Rydberg, and Small discovered, even if the latter did overlook a surprisingly large number of names that he should have adopted instead of proposing entirely new ones (see p. 25), Rafinesque will be found to have proposed names which may be used. Both generic and subgeneric names are involved. Clearly it is preferable to accept a published name whenever possible rather than to propose an entirely new one when one elects to subdivide such collective genera as Euphorbia Linn., Cassia Linn., Acacia Willd., Bauhinia Linn., and Carex Linn. In more than 130 cases in genera of the collective type, or those proposed by Linnaeus and later very loosely interpreted by his successors, Rafinesque proposed from few to many generic names for segregated

groups; and it is usually possible to decide exactly what group he intended his new name to represent, because he normally indicated his type-species or listed the species that he referred to his new genus, thus making it possible to select a type. He was an early disciple of the type-concept which has come into its own only within the last few decades of the present century.

### DECAPITALIZATION OF SPECIFIC NAMES

My personal preference has been to decapitalize all specific names regardless of their origin, this being in accord with universal zoological (but not botanical) usage. This policy has been followed in this Index Rafinesquianus except in quoted passages. True the International Code of Botanical Nomenclature recommends that: "Specific (or other) epithets should be written with a small initial letter, except those which are derived from the names of persons (substantives or adjectives) or are taken from generic names (substantives or adjectives)." This is a recommendation, not a rule, leaving individuals choice in the matter. Doctor L. H. Bailey, Gent. Herb. 7: 168-178, 1946, is strongly in favor of the practice of using capital initial letters in specific cases, presenting his arguments in a conservative but telling manner. Professor Fernald 17 in his discussion of Sedum Rosea versus Sedum roseum has added his unrestrained typically Fernaldian arguments to Bailey's plea. One who might be undecided might be influenced by Bailey's restrained statement. In contrast he might resent Fernald's utterly unrestrained argument, for one judges from his presentation that all who prefer uniform decapitalization are, in his mind, a group of botanical pariahs. I quote Fernald's statement in his discussion of the Sedum Rosea case:

"This binomial presents an interesting case for those selfstyled 'progressives' and standardizers (who are never progressives) who would destroy the clues to origins of specific names by uniformly decapitalizing them all. If they decapitalize Rosea and make it look like a feminine adjective (which it is not) they appear uninformed as to the gender of Sedum; if they insist on Sedum roseum they wholly misrepresent the truth. As L. H. Bailey well says: 'A binomial is more than a name for a plant. It has history and significance. If decapitalization obscures this significance then it should be used with caution. One who disregards the meanings is not sensitive to words, and he may deprive nomenclature of one of its interesting assets,' Bailey, Gent. Herb. vii. 171 (1946). He further says: 'There is . . . no sense in [decapitalized] Polygonum convolvulus, Daphne mezereum, Convolvulus soldanella, Acacia julibrissin, Jatropha manihot, Brassica pe-tsai, Phaseolus mungo, Psoralea onobrychis, Zea mays' (Bailey, p 172). All this was clearly understood by Linnaeus, Lamarck, Willdenow, the De Candolles, the Hookers, Kunth, Torrey, Gray, Engler and countless others (even Britton, Rydberg, and Small, in many ways radical rather than progressive), who have initiated real progress in the science, although, before doing so, they did not announce themselves as 'progressive.' They were truly progressive because their work demonstrated them to be so and because they had real respect for good usage and understanding of words. One is not a progressive merely by adopting that misused term as a mask for intellectual inertia or lack of linguistic insight, any more than the self-appointed candidate for political office is a statesman simply by so labeling himself. Some of the younger 'progressives' who adopt that unearned tag... would do well, if they are not superior to being instructed, to read and digest the whole discussion in 'Species-names with capital letters' (Bailey, 1. c. 168-171) by the always progressive dean of all of us."

Even at the risk of being charged with intellectual inertia and with a lack of linguistic insight, to say nothing of being superior to being instructed, and after considering various arguments pro and contra, I am still of the opinion that decapitalization of all specific names is to be preferred, and that current zoological practice is superior to conservative botanical usage. One wonders what Fernald's reaction would be to the practice among certain entomologists who have strayed so far from the classical field that any pronounceable jingle of letters forming an utterly meaningless specific name is good entomological usage. Presumably he would capitalize them. Almost simultaneously with the Fernaldian explosion quoted above this editorial announcement appeared in the Kew Bulletin 1947: 48. 1947:

"Beginning in 1947 all specific epithets will be printed with a small initial letter. This decision has been reached in order to insure uniformity, and to avoid the unwarrantable expenditure of time on research when the use of capitals is in doubt. The arguments in favor of following the modified recommendation passed by the Amsterdam Congress, 1935, have not been ignored in reaching this decision, but they appear to be very definitely outweighed by practical considerations."

Doubtless this botanical tempest in a teapot will continue to rage. The conservatives will continue to be conservative, and will rail against dictation from above on what, after all, is an utterly inconsequential matter. In the United States, historically, the botanists in government employ, whether they approved or not, for some decades have been obliged, by ukase, to decapitalize all specific names. But a very considerable number of others, outside of governmental influence, have elected to follow the simpler method now gaining support elsewhere in spite of all that can be said against what the ultra-conservatives would characterize as the nefarious practice of uniform decapitalization of all specific names.

### DIFFERENCES IN ENTRIES

If one examines the entries in this work and compares them with those included in Index Kewensis, one difference will be noted. I have elected to list the Rafinesque names as published, correcting only an occasional case ending. Thus it is that Rafinesque published 13 binomials under Brunella Linn. But in Index Kewensis the generic entry is "Brunella Tourn. ex Linn. Syst. ed. 1 (1735) = Prunella Linn." with the Brunella specific entries all placed under Prunella, except those entered in supplements one to eight. Technically the Rafinesque Prunella entries in Index Kewensis appear there as new binomials. Rafinesque deliberately selected Brunella stating that the ten species were described under "Brunella (misspelled Prunella by error of the press)," New Fl. N. Am. 2: 32. 1836

<sup>&</sup>lt;sup>17</sup> Fernald, M. L. Sedum Rosea, not S. roseum. Rhodora 49: 79-81. 1947.

[1837]. He might have objected to his species being listed under Prunella, not that this makes any very great difference one way or the other. There are a great many more or less similar cases in this Index. Presumably the average botanist would be content to consider most of these as variant spellings and ignore the fact that they really are new names, particularly where there is a differential of only one letter in a generic name such as Theaphyla as actually published by Rafinesque, and Theaphylla as the entry appears in Index Kewensis. It frankly does appear to be rather pedantic to enter seven Theaphyla items credited correctly to Rafinesque, and the same seven also under Theaphylla and credited to "Raf. ex Jacks". Ind. Kew." In spite of the advantages of the Index Kewensis system of listing all Galardia names under Gaillardia, Xanthoxylum under Zanthoxylum, Brunella under Prunella, and numerous other similar cases, I have consistently accepted the variant Rafinesque spellings. We cannot say that typographical errors were involved in such cases, knowing that Rafinesque deliberately changed names when he did not approve of the original spelling. His acceptance of the spelling Theaphyla was deliberate, not a typographical error, because of his strong feeling against double letters as parts of technical names.

## Unpublished Names Credited to Rafinesque

There are, unfortunately, a great many Rafinesque binomials published in *Index Kewensis* for the first time. These have been entered as "Raf. ex Jacks\*. Ind. Kew." and the total number is approximately 640. A classical example is Jackson's treatment of nineteen species of *Convolvulus* which he credited to Rafinesque as transferred to *Tirtalia*, Raf. Fl. Tellur. 4: 71. 1836 [1838]. An examination of Rafinesque's treatment shows that he did publish *Tirtalia striata*, angustifolia, emarginata, maxima and sibirica as transfers from Convolvulus, but for the other fourteen he merely indicated that these species of Convolvulus belonged in a third subgenus characterized as Phaestis but he actually did not transfer the names to Tirtalia.

# Corrections to Index Kewensis

In addition to these rather numerous Rafinesque binomials that Jackson actually published for the first time there is another category of corrections to *Index Kewensis*. These are, for the most part, earlier places of publication of Rafinesque's names than as entered in *Index Kewensis*; such names (approximating 330) are indicated by the sign †. The fault here is largely that of Rafinesque himself who not infrequently considered the same genus or the same species several different times, being exceedingly careless of or very sketchy in his bibliographic references; in fact anything approaching completeness in bibliographic references is conspicuously absent in Rafinesque's published works. He apparently did not believe in documentation, leaving the burden of bibliography to his successors. Otherwise

the number of corrections is small, for the misspelled Rafinesque names in *Index Kewensis* are very few; remarkably few when one considers the erratic nature of Rafinesque's own published work, and the manifest sketchiness of his proof-reading.

# REASONS FOR OMISSIONS IN INDEX KEWENSIS

It is a well-known fact that in compiling Index Kewensis it was assumed that the entries covering the early published works were reasonably complete in such lists as Steudel's Nomenclator, Buek's Index to De Candolle's Prodromus, and the indices to Willdenow's edition of the Species Plantarum, Sprengel's edition of the Systema Vegetabilium, and other general works of this type. Thus, if the earlier monographers or authors of more generalized works overlooked a binomial published before the middle of the nineteenth century, such overlooked names frequently did not appear in Index Kewensis. Then, too, in a work of such magnitude and covering the world literature of systematic botany, it was inevitable that certain publications were overlooked either because of their rarity or because it was thought unlikely that new names might appear here and there in this or that work. Personally, I think it is expecting too much for the very few individuals who are charged with the recording of new names in current literature, one for the entire world, one for North and South America, to detect absolutely the last new name, and at the same time recheck the older literature where it is known, or suspected, that validly published and as yet unlisted binomials occur.

# Additions to the Rafinesque Bibliography

Rafinesque was an untiring worker and a persistent, even if a misguided, author and publisher. He apparently believed that everything he wrote, even some of his correspondence, was worthy of publication. As long as he could persuade various editors to accept his offerings, or he had funds with which to pay the printing bills for his rather extraordinarily large series of private publications, the number of items reached gargantuan proportions. From the date of publication of his first technical paper in Paris in 1803 and others in New York from 1804-1808 until his death in 1840 he was indefatigable.

I have already indicated that I should have hesitated to initiate work on this project but for the comprehensive Rafinesque bibliography published by Prof. T. J. Fitzpatrick <sup>18</sup> in 1911. While no special search has been made for additions to his long list, a curiously large number of Rafinesque titles have been detected in the course of checking botanical and other literature in connection with the preparation of this text. In my system of numbering, the additions total 44, including various modern reprints of certain Rafinesque works. If, however, Fitzpatrick's system of numbering be

<sup>18</sup> Fitzpatrick, T. J. Rafinesque. A Sketch of His Life With Bibliography. 1-239, illus. 1911 (pp. 65-219).

followed, the additions would be increased by approximately 90, and this would bring the Rafinesque total to more than 1000 published items. Were I preparing a Rafinesque bibliography I should doubtless combine in one entry all School of Flora items and also should not list the individual parts of certain volumes as separate publications. I specify the numerous School of Flora items for reduction to a single entry because there is no subsidiary title for any of the individual articles; I might not similarly reduce the various entries under The Cosmonist, Museum of Natural Sciences, Cho, etc., for with these each one has a distinctive subtitle. On this basis the number of separate Rafinesque papers would be reduced from 939 as listed by Fitzpatrick to about 820, and the newly located items in my system of numbering would increase this to about 860.

Undoubtedly the largest amount of new data regarding Rafinesque is that to be found in the numerous unpublished manuscripts and letters now available in the libraries of the Academy of Natural Sciences, and of the American Philosophical Society in Philadelphia. Many of these items have only recently become available for study. It was from this source that Doctor Pennell drew much of the data utilized by him in preparing his paper of 1942, included in the succeeding list of additions to the Bibliotheca Rafinesquiana. I have a list of these manuscript items and have actually examined some of them. I have not attempted to include these as a part of the Rafinesque bibliography.

Rafinesque, C. S. [Precis of Rafinesque's Remarks. Lyceum of Natural History. Sitting of Sept. 1, 1817]. Am. Monthly Mag. Crit. Rev. 1: 453. 1817.

Contains certain new names for plants and fishes of Long Island, and a summary of his preamble to his Florula

Ludoviciana.

Natürliche Verwandtschaften zwischen den Sippen Viscum, Samolus und Viburnum. Isis von Oken, 1821, 2: 977-979. 1821.

A German translation of Fitzpatrick no. 345.

Beschreibung und natürliche Classification der Floerkea. Isis von Oken, 1822, 2: 1320-1321. 1822. A German translation of Fitzpatrick no. 284.

Drei neue Pflanzensippen aus dem Staate New York. Isis von Oken, 1822, 2: 1321-1323. 1822.

A German translation of Fitzpatrick no. 285: Cylactis, Nemopanthus, and Polanisia.

Über Myosurus Shortii. Isis von Oken, 1822, 2: 1323.

A German translation of Fitzpatrick no. 286.

— Diplocea, neue Grassippe von Rafinesque. Isis von Oken, 1822, 2: 1324. 1822.

Republication of Rafinesque's description of 1818; sup-

Plementary to Fitzpatrick no. 281.

Sketches of America by a Traveller. Sat. Eve. Post 5 (41): [1], Oct. 14, 1826; Third Sketch, Real Names of Columbus. 5 (43): [1], Oct. 24, 1826; Fourth Sketch, East Kentucky or New Kentucky. 5 (45): [2], Nov. 11, 1200. First Clark 11, 11, 1200. 1826; Fifth Sketch, the Upper Potowmack River. 5 (48): [1], Dec. 2, 1826. Signed "Americus" but clearly written by Rafinesque.

American History. Sat. Eve. Post 7

Nov. 7, 1826.

Signed "Historicus" but apparently written by Rafinesque. - Capt. Symmes' Theory of the Earth. Sat. Eve. Post

6 (289): [2], Feb. 10, 1827. Signed "Americus."

[Remarks on an Essay on Botany]. Sat. Eve. Post 6 (293): [4], March 10, 1827.

Republication of the same item from the Casket; supplementary to Fitzpatrick no. 479.

Grape Vines. Sat. Eve. Post 6 (294): [2], March 17, 1827.

Unsigned, but clearly by Rafinesque.

Medical Discovery. Sat. Eve. Post 6 (303): [2], May 19, 1827.

Unsigned article on pulmel, certainly by Rafinesque. Medical Notice. Sat. Eve. Post 6 (325): [3], Oct.

20, 1827.

Signed "Medicus." 19

The School of Flora. Cephalanthus occidentalis. Sat. Eve. Post 6 (312): [4], July 21; Juniperus communis 6 (335): [4], Dec. 22, 1827; Spartium scoparium 7 (336): [4], Jan. 5, 1828; Sigillaria multiflora 7 (338): [4], Jan. 19, 1828; Tussilago nivea 7 (339): [4], Jan. 25, 1828; Apocynum androsemifolium 7 (340): [4], Feb. 2, 1828; Clinopodium vulgare 7 (341): [4], Feb. 9, 1828; Ornithopus compressus 7 (345): [4], March 3, 1828; Eryngium maritimum 7 (346): [4], March 15, 1828; Hepatica triloba 7 (356): [4], May 24, 1828; Hibiscus speciosus 7 (357): [4], May 31, 1828; Ipomea quamoclit 7 (359): [4], June 14, 1828; Scutellaria lateriflora 7 (360): [4]. June 21, 1828; Aquilegia canadensis 7 (363): [4], July 12, 1828; Alchemilla alpina 7 (364): [4], July 19, 1828; Nuttala grandiflora 7 (367): [4], Aug. 9, 1828; Bryonia alba 7 (368): [4], Aug. 16, 1828; Chelone glabra 7 (372): [4], Sept. 13, 1828; Fraxinus quadrangularis 7 (375): [4], Oct. 4, 1828; Cotyledon umbilicus 7 (377): [4], Oct. 18, 1828; Gentiana sponaria 7 (379): [4], Nov. 1, 1928; Primula veris 7 (381) [4], Nov. 15, 1828; Paris quadrifolia 7 (385): [4], Dec. 20, 1828; Cactus grandiflorus 7 (387): [4], Dec. 27, 1828; Eupatorium perfoliatum 9 (447): [4], Feb. 20, 1830; Cypripedium luteum 9 (453): [4], April 3, 1830, Asclepios tuberosa 9 (459): [41], May. 15 The School of Flora. Cephalanthus occidentalis. Sat. [4], Dec. 27, 1828; Eupatorium perfoliatum 9 (447): [4], Feb. 20, 1830; Cypripedium luteum 9 (453): [4], April 3, 1830, Asclepias tuberosa 9 (459): [4], May 15, 1830; Convolvulus panduratus 9 (462): [4], June 5, 1830; Frasera verticillata 9 (470): [1], July 31, 1830; Gillenia stipulacea 9 (474): [1], Aug. 28, 1830; Cunila mariana 9 (480): [1], Oct. 9, 1830; Gentiana catesbei 9 (486): [1], Nov. 20, 1830; Nelumbium luteum 10 (566): [4], April 9, 1831; Panax quinquefolium 10 (514): [4], June 4, 1831; Scutellaria laterifolia 10 (520): [4], July 16, 1831; Agaricus surrectus 10 (527): [1], Sept. 3, 1831; Chelone glabra 10 (536): [4], Nov. 5, 1831; Spigelia marilandica 10 (541): [4], Dec. 10, 1831; Lobelia inflata 11 (549): [4], Feb. 4, 1832; Pterospora andromeda 11 (552): [4], Feb. 25, 1832; Leontodon taraxacum 11 (556): [4], March 24, [41, Feb. 4, 1632; Fterospora andromeda 11 (556): [4], Feb. 25, 1832; Leontodon taraxacum 11 (556): [4], March 24, 1832; Symphytum officinale 11 (560): [4], April 21, 1832; Xanthoxylon fraxineum 11 (563): [4], May 12, 1832; Xanthoxylon fraxineum 11 (563): [4], June 2, 1832; Trillium latifolium 12 (571): [4], July 7, 1832.

These previously overlooked items are merely repetitions for the theorems and the same still. The School of

of data that appeared under the same title, The School of Flora, in The Casket, Fitzpatrick nos. 476-604. Each entry consists of a single figure together with a detailed description and discussion of the species. The Casket and the Saturday Evening Post were edited and published by Mr. Atkinson, so it was perhaps but natural that these items appeared in each. In some cases it is apparent that the Post antedated The Casket publication. The figures are those of

Rafinesque's Medical Flora (1828-1830)

Success of the Pulmel. Sat. Eve. Post 7 (339): [2], Jan. 25, 1828.

Signed "Medicus."

First Select Case of Consumption Cured by Pulmel. Sat. Eve. Post 7 (338): [3], Jan. 19; Second Select Case 7 (343): [2], Feb. 23; Third Select Case 7 (354): [2], May 10, 1828.

Signed "Medicus."

Four Letters on American History. By Prof. Rafinesque to J. H. M'Culloh of Baltimore. Sat. Eve. Post 7 (358): [1], June 7; Second Letter, op. cit. (360): [1], June 22; Third Letter, op. cit. (364): [2], June 19; Fourth Letter, op. cit. (371); [1], Sept. 6, 1828.

Sets forth some of Rafinesque's views on the significance of the philology of certain Mexican and Yucatan languages.

<sup>19 &</sup>quot;My dislike of every appearance of empirism, and my wish to avoid censure, induced me to conceal myself under the name Medicus. . . . " Rafinesque, C. S. The Pulmist 8. 1829.

Rafinesque, C. S. Consumption Nr. 1. Sat. Eve. Post 7 (347):
[2], March 22, 1828; No. 2, 7 (351): [2], April 19, 1828;
No. 4, 7 (375): [2], Oct. 4, 1828.
Signed "Medicus."

— The Americans are not Jews. To the Rev. Ethan Smith, Pastor of Poultney in Vermont. Sat. Eve. Post 8 (424): [1], Sept. 12, 1828. Signed C. S. R.

Plugging Trees. Sat. Eve. Post 10 (462): [2], Oct.

8, 1829.

Signed C. S. R. Appertains to a proposed method of con-

trolling certain pests.

— Account of the Largest Tree Near Philadelphia. Sat. Eve. Post 10 (503): [1], May 28, 1831. Cupressus disticha in Bartram's garden, planted in 1742, signed C. S. R.

From the Journal of a Naturalist. Sat. Eve. Post 10

(527): [1], 2 fig., Sept. 3, 1831.

The harvest mouse and its nest, and Agaricus surrectus, both illustrated. Republication of *Journal of a naturalist*, Casket 1831: 422-424. *2 fig.* 1831. Unsigned but certainly by Rafinesque.

East Indian Cholera. Sat. Eve. Post 10 (528): [1-2], Sept. 10, 1831. Signed "Medicus."

— On the Spasmodic Cholera. Sat. Eve. Post 10 (529): [2], Sept. 17, 1831.
Signed C. S. R.

From the Medical Flora of the United States. Qualities and Properties of Grape Vines and Wines. Sat. Eve. Post 12 (582): [4], Sept. 22, 1832.

— Bemerkungen zur Encyclopaedia of Plants of Loudon, Lindley and Sowerby von C. S. Rafinesque, Professor der Botanik und Naturgeschichte etc. in Philadelphia. Januar 1831. (Aus Loudon's Gardener's Magazine, vol. VIII (April 1832), p. 245. Linnaea 8: Lit.-Ber. 66-75. 1833. A German translation [by D. F. L. von Schlechtendal] of

Fitzpatrick no. 605. Supplementary to Fitzpatrick no. 605,

Extrait d'une lettre de M. C. S. Rafinesque, professeur à Philadelphie, addressée à Mr. le Prof. De Candolle (Mai 1830), p. 214. Linnaea 8: Lit.-Ber. 79-86, 1833.

Republication of Rafinesque's original paper issued in Seringe Bull. Bot. 1: 214-221. 1830, the introductory matter translated into German. The Latin diagnoses reproduced. Supplementary to Fitzpatrick no. 556.

Remarques botaniques sur quelques plantes de l'Amérique Septentrionale, dans les quatre premiers volumes du Prodromus ou Synopsis plantarum de de Candolle, Act. Soc. Linn. Bordeaux **6**: 261-269. 1834.

This is the basis of my: A Generally Overlooked Rafinesque Paper. Proc. Am. Philos. Soc. 86: 72-90. 1942. — Descriptions des genres fossiles Ditaxopus, Trianisitis, Trioxites, Menepites, et Trianistes. Bull. Soc. Géol. France **10**: 378-381. 1839.

— Sur les fossiles de la vallée Sherman des montes Alleghany. Bull. Soc. Géol. France 10: 381-383. 1839.

Neogenyton, or Indication of Sixty-Six New Genera

of Plants of North America. 1-4. 1825 (1912).

No. 1 of a series of reprints of rare works on natural history under the auspices of the American Midland Naturalist. July, 1912. Facsimile reprint of Fitzpatrick no.

— Monographie des coquilles bivalves et fluviatiles de la rivière Ohio. Remarques sur les rapports naturels des genres Viscum, Samolus et Viburnum. A Bruxelles. De l'imprimierie de Weissenbrugh père Rue du Musée No. 1057 (1820). [Part of Annals of Nature] 17-60. 1820 (1912). No. 2 of a series of American Midland Naturalist reprints, July, 1912. Supplementary to Fitzpatrick nos. 344,

345, 363, 934.

Scadiography of 100 Genera of Ombelliferous Plants, Etc. 49-61. 1840 (1913).

No. 3 of the American Midland Naturalist series of reprints, July, 1913. Supplementary to Fitzpatrick no. 906. 5. Botany. The Natural Family of Carexides. 23-28. 1840 (1913). No. 4 of the American Midland Naturalist series of reprints, July, 1913. Supplementary to Fitzpatrick

Autikon Botanikon . . . 1-200. 1815-1840 [1942]. A facsimile lithoprint reproduction, 1942, Arnold Ar-

boretum, Jamaica Plain, Mass. Supplementary to Fitzpatrick nos. 897-899.

— Sylva Telluriana.

Sylva Telluriana . . . 1-184. 1838 [1943].

A facsimile lithoprint reproduction 1943, Arnold Arboretum, Jamaica Plain, Mass. Supplementary to Fitzpatrick no. 885.

patrick no. 885.

A Life of Travels (1836). Verbatim reprint. Chron. Bot. 8: 298-353, illus. 1944.

Foreword by E. D. Merrill, critical index with explanatory comments by F. W. Pennell. The illustrations consist of reproductions of three portraits of Rafinesque and state of women by Rafinesque reproduced from two sketches of women by Rafinesque reproduced from H. B. Weiss Rafinesque's Kentucky Friends. Supplementary to Fitzpatrick no. 863.

Medical Consultation on the Case of Daniel Vanslyke. By C. S. Rafinesque, Pulmist &c. Philadelphia, 10th Sept. 1830. Bull. Hist. Medicine 18: 424-437. 1945.

Rafinesque's original holographic report, with pertinent correspondence and introductory data prepared by Mabel Clare Weaks. The suggested treatment unsuccessful, pencil note on the original document "Died Dec. 4th 1831—After being flattered by this consultation to the amount of \$50.00." Atlantic Journal and Friend of Knowledge 1-212. 1832-

1833 [1946] A facsimile lithoprint reproduction, 1946, Arnold Arboretum, Jamaica Plain, Mass. Supplementary to Fitz-

patrick nos. 864-868.

Flora Telluriana . . 1: 1-101. 1836 [1837]; 2: 1-112. 1836 [1837]; **3**: 1-100. 1836 [1837]; **4**: 1-135. 1836 [1838]. [1946].

A facsimile lithoprint reproduction, 1946, Arnold Arboretum, Jamaica Plain, Mass. Supplementary to Fitz-patrick nos. 869-873.

New Flora of North America . . . 1: 1-100. 1836; 2: 1-96. 1836 [1837]; 3: 1-96. 1836 [1838]; 4: 1-112. 1836 [1838]. [1946]. A facsimile lithoprint reproduction, 1946, Arnold Arboretum, Jamaica Plain, Mass. Supplementary to Fitz-

patrick nos. 864-868.

Précis des découvertes somiologiques ou zoologiques et botaniques. 1-55, 1814 [1948].

A facsimile lithoprint reproduction, 1948, Peter Smith, New York, foreword by E. D. Merrill. Supplementary to Fitzpatrick no. 230.

Western Minerva, or American Annals of Knowledge A facsimile lithoprint reproduction, 1949, Peter Smith, New York, foreword by E. D. Merrill.

### Additions to the Bibliotheca Rafinesquiana

Fitzpatrick's 20 basic list of 134 items is an excellent one. A perusal of it at once indicates what an enormously wide field of published data one must or should cover in search for items about Rafinesque—all the biological sciences, medicine, history, philology, anthropology, archeology, and numerous other subjects (see p. 44). In the present supplementary list 107 additional titles are included, about 20 of which appeared before Fitzpatrick's excellent work was issued in 1911, the remainder since that date. That nearly 90 papers regarding Rafinesque and his work have been published since 1911 is an indication of the recrudescence of interest in the career of the catholic-minded but utterly erratic Rafinesque and the significance of his work. Two of these items provide a great deal of new information about that strange character, these being Pennell's publication of 1942 and Dupre's booklet of 1945. Sadly in contrast with these are the contributions of Peattie in 1936, and of Jaffe in 1944. Admittedly most of the modern papers about Rafinesque are recapitulations of previously published items by Rafinesque himself,

<sup>&</sup>lt;sup>20</sup> Op. cit. 223-239.

his contemporaries, or his immediate successors. Sometimes, however, one marvels at the grotesquely erroneous

interpretations of this or that author.

If one elected to add the titles of all technical papers and independent volumes in descriptive biology of other authors in which Rafinesque genera and species are included, one would have to cover the descriptive biological literature of the entire world, and this would add some thousands of titles that would merely confuse the issue and serve no useful purpose. In listing items about Rafinesque's genera and species by such authors as Fernald, Stearn, and others, the basis of selection has been whether or not the paper was essentially based on Rafinesque entities.

Anonymous. Rafinesque. Nachricht an Naturforscher aus Nord-

amerika. Flora 8 (1): Beil. 1: 144. 1825.
Brief statement regarding Rafinesque's botanical garden

project, projected exchanges, etc.

— The Lexington Herald. Body of Rafinesque, Famous Scientist, is Brought to Transylvania College, March 1, 1924. Medical Life 31: 155-158. 1924.

Apparently a reprint or a summary of a newspaper item.

Constantine Rafinesque. Missouri Bot. Gard. Bull. 15:

164-171. 1927.

— Celebrated Conservationists and Naturalists in Our National Parks, Constantine Samuel Rafinesque, U. S. Dept. Interior, press release. 1-11. 1928.

Barkley, A. H. Constantine Samuel Rafinesque. Ann. Med. Hist.

10: 66-76. 2 portr. 1928.

— Pioneer Medical Men of Lexington. Kentucky Med. Jour. 29: 463-468. 1931.

Includes brief notes on Rafinesque, p. 465-466, with a

portrait.

Barnhart, J. H. Brief Sketches of Some Collectors of Specimens in the Barton Herbarium. Bartonia 9: 35-42. 1926

(Rafinesque, p. 41).

Betts, E. M. The Correspondence Between Constantine Samuel Rafinesque and Thomas Jefferson. Proc. Am. Philos. Soc.

**87**: 368-380. 1944.

Reproductions of about ten letters from Rafinesque to Jefferson, written in 1804 and between September, 1819 and July, 1824, with some of Jefferson's responses. The letters of 1819-24 are chiefly in reference to Rafinesque's desire to secure appointment as Professor of Natural History at the University of Virginia.

Blake, S. F. The Identity of the Genus Adventina Raf. Rhodora 24: 34-36. 1922.

Reduced to Galinsoga Cav.

Britten, J. An Overlooked Paper by Rafinesque. Jour. Bot. 38: 224-229. 1900.

Includes a republication of Rafinesque's Remarks on the Encyclopaedia of Plants of Loudon, Lindley, and Sowerby. Supplementary to Fitzpatrick no. 605, who uses the title "Art III Retrospective criticism" which was Loudon's title, Rafinesque's original appearing in Loudon's Gardener's Magazine 8: 244-248. 1832.

Brown, L. A. (Editor) Rafinesque Memorial Papers. October 31, 1940. Transylv. College Bull. 15 (7): 1-108. 1942.

The individual papers, as far as they appertain to Rafi-

nesque, entered separately in this list.

Brown, R. H. [Review of] A Life of Travels, by C. S. Rafinesque, 1944 reprint. Geogr. Rev. 35: 337-338. 1945.

Camp, W. H. Studies in the Ericales: The Search for Adnaria odorata Raf., and Arbutus obtusifolius Raf. Castanea 6: 80-

An excellent example of working out accurate identities on the basis of "residues," i. e. what species flowering at a certain time in a certain locality agrees with an inadequate early description where types are not extant.

Chase, A. The Durand Herbarium. Bartonia 17: 40-45. 1936. On p. 44 it is noted that Durand preserved none of the

Rafinesque types of grasses.

Clay, W. M. Herpetology and Rafinesque. Transylvania College Bull. 15(7): 84-90. 1942.
Coulter, J. M. & Rose, J. N. Musineon of Rafinesque. Bot. Gaz. 20: 258-260. 1895.

Coville, F. V. The Technical Name of the Camas Plant. Proc. Biol. Soc. Washington 11: 61-65. 1897.

A. Constantine Samuel Rafinesque. Bull. Gard. Club Am. IX. 12: 12-16. 1945.

Compiled data from various published sources.

Dayton, W. A. [Review of] A Life of Travels. By C. S. Rafinesque, 1944 reprint. Jour. Forest. 43: 381-382. 1945.

Includes various incidental data regarding Rafinesque.

Dupre, H. Rafinesque in Lexington 1819-1826. i-xii. 1-99, frontisp., 1945.

A detailed consideration of Rafinesque's sojourn at Transylvania College, 1819-1826; bibliography. Includes much new information regarding Rafinesque.

Farwell, O. A. Corallorrhiza maculata Raf. Rhodora 25: 31-32.

— Eukrania and Cynoxylon not Genera of Rafinesque. Rhodora 34: 29-30. 1932.

— Cornus, a Reply. Torreya 42: 130. 1942.

Considers certain Rafinesque names; see Rickett, H. W.

Fassett, N. E. Veronica connata Rafinesque. Jour. Washington Acad. Sci. 37: 353-354. 1947.

Fernald, M. L. Some Genera and Species of Rafinesque. Rhodora 34: 21-28. fig. 1-6. 1932.

Four of Rafinesque's Species of Sisyrinchium. Rhodora 46: 42-45. 1944.

Two of Rafinesque's Species of Tradescantia. Rhodora

46: 310-311. 1944.

— Technical Studies on North American Plants. I. Some "Herbarium Rafinesquianum."

Species in Rafinesque's "Herbaria Rhodora 48: 5-13. pl. 993, 994. 1946. Includes various nomenclatural changes necessitated on

the basis of priority of Rafinesque's descriptions, chiefly in the Orchidaceae.

Funkhouser, W. D. An Eccentric Egocentric. 1-23. 1940. "Reprinted 1940. The hundredth anniversary of the death of Rafinesque."

-Archeologist. Transylv. College Bull. 15 Rafinesque-

(7): 78-80. 1942.

Gleason, H. A. Blephilia ciliata (L.) Benth. Rhodora 50: 53-55. 1948.

A discussion of Rafinesque's proposed binomials in Blephilia concluding that Bentham, not Rafinesque, is the author of B. ciliata.

Haag, H. B. Rafinesque's Interests—a Century Later; Medicinal Plants. Science II. 94: 403-406. 1941.

Rafinesque's Interests—Medicinal Plants. Transylv.
College Bull. 15 (7): 91-96. 1942.
Condensed from the preceding item.

Hagen, V. W. von. Rafinesque, the Unnatural Naturalist. The
Life Story of One of the Strangest Personalities That Ever Passed Across the Scientific Stage in America. Nat. Hist. 56: 296-303, illus. 1947.

Hist. 56: 296-303, illus. 1947.

Hallowell, E. Case of Cancer of the Stomach and Liver. Med. Exam. [Phila.] 3: 597-599. 1840.

The case of Rafinesque, Dr. Hallowell's visits from Sept. 10, 1840 to Rafinesque's death; diagnosis, treatment prescribed, and detailed results of the autopsy performed. Rafinesque died at 9 P. M., Sept. 18, 1840.

Hanse A. W. Pafrassque the Great Naturalist. A Paper Read.

Rahnesque died at 9 P. M., Sept. 18, 1840.
Hance, A. M. Rafinesque, the Great Naturalist. A Paper Read Before the Bucks County Historical Society at Langhorne [Pennsylvania], June 4, 1914. 1-2. 1914.
Harrison, J. W. The Transylvania Botanic Garden. A Little Known American Enterprise of Great Historic, Scientific, and Educational Interest. "The Athens of the West"—Lexington, Kentucky. Home of the First Printing Press, Newspaper Public Library, and University West of the Newspaper, Public Library, and University West of the Alleghanies. A Pioneer Naturalist of a Century Ago and the Botanic Garden he Sought to Found. Jour. Am. Hist. 901-909, 1913.

Biologists might be inclined to smile at this remarkable title, for apparently it was editorial policy to give an epitome of each paper in the title; and here the editor carelessly left out the one really important item, the name Constantine Samuel Rafinesque. The projected garden never materialized, having failed immediately, so that it was never of "great historic, scientific, and educational interest."

Heck, E. L. W. Constantine Rafinesque. Sci. Monthly 25: 554-558. 1927. Reprint 1-5.

Henricus quatre Henr

Henricus quatre [Leon Croizat]. Rafinesque: A Concrete Case.

Archiv. Bot. 24: — 1948 (reprint 1-18). Higinbotham, L. [A Review of] Rafinesque's A Life of Travels, 1944 reprint. Am. Midl. Nat. 37: 805-806. 1947.

House, H. D. Viburnum Rafinesquianum Schultes. Torreya 35: 126. 1935.

Jaffe, B. Men of Science in America. The Role of Science in the Growth of Our Country. i-xi. 1-600, illus. 1944.

Chapter five, pages 104-129, is devoted to Rafinesque;

compiled data, nothing new.

Jordan, D. S. Concerning Rafinesque's Précis des découvertes somiologiques. Proc. Acad. Nat. Sci. Philadelphia 69: 276-278. 1917.

The Bones of Rafinesque. Science II. 59: 553-554.

1924.

Kuntze, 0. Rafinesque (-Schmaltz), C. S. In his: Revisio generum plantarum 1: cxxxix-cxli. 1891. Lists about 40 of Rafinesque's botanical titles and briefly

discusses his work.

Little, E. L., Jr. A Note on Rafinesque's Florula Columbica. Proc. Biol. Soc. Washington 56: 57-65. 1943.

Critical notes on the announced but never published paper, the original manuscript apparently no longer extant.

Leonard, W. E. Some Early Philadelphia Botanists; Schweinitz, Nuttall, Rafinesque and Darlington. Bull. Minnesota Acad. Nat. Sci. 3: 29-37. 1889. Rafinesque p. 31-35.

Lloyd, J. U. & Lloyd, J. T. A Librarian's Story. Jour. Am. Pharm. Assoc. 20: 918-921. 1931.

Includes an account of the acquisition of a copy of Rafinesque's Medical Flora, and the reproduction of a letter from Rafinesque to Manesseh Cutler written at Palermo

May 2, 1804.

Lockwood, A. G. B. Gardens of Colony and State. i-xii. 1-444.

illus. 1934.

On page 25 Rafinesque's Transylvania University Botanic Garden is briefly considered.

Nieuwland, J. A. Tithymalopsis and Dichrophyllum, Synonyms.

Am. Midl. Nat. 2: 298-300. 1912. Tithymalopsis Klotzsch & Garcke (1859), replaced by Agaloma Raf. (1836), and Dichrophyllum Klotzsch & Garcke (1859) replaced by Lepadena Raf. (1836), with

sixteen transfers of specific names.

Norton, C. F. Manuscript Collection of Rafinesque in the Transylvania Library, Transylv. College Bull. 15 (7): 106-107. 1942.

Lists seventeen items.

Publications of Rafinesque in the Transylvania Library. Transylv. College Bull. 15 (7): 97-105. 1942.

Lists about 150 titles.

McVaugh, R. The Genus Triodanis Rafinesque, and Its Relationships to Specularia and Campanula. Wrightia 1: 13-52. 1945.

Rafinesque's generic name is accepted and eight species recognized.

Merrill, E. D. Modern Facsimile Reproductions of Rare Technical Publications. Science II. 96: 180-181. 1942.

Rafinesque's Autikon Botanikon.

— A Generally Overlooked Rafinesque Paper. Proc. Am. Philos. Soc. 86: 72-90. 1942.

Rafinesque Publications From the Standpoint of World Botany. Proc. Am. Philos. Soc. 87: 110-119. 1943.

Foreword [to the 1944 reproduction of Rafinesque's "Life of Travels"]. Chron. Bot. 8: 292-297. 1944.
Only One Botanist. Jour. N. Y. Bot. Gard. 46: 203-

204 1945

A brief review of Jaffe, B. "Men of science in America," who, of all men, selected Rafinesque as the one botanist worthy of inclusion in his book which covers the period 1560 to date. His sketch of Rafinesque adds nothing to our knowledge of that prince of erratic naturalists.

Nomenclatural Notes on Rafinesque's Published Papers

Nomenciatural Notes on Rainiesque's Fublished Papels
1804-1840. Jour. Arnold Arb. 29: 202-214. 1948.
Certain of Rafinesque's earlier specific names accepted, ten in all, and transferred to the currently accepted generic names. Includes a list of about 75 Rafinesque generic names, all of which are valid under the provisions of the International Code of Botanical Nomenclature under its priority rule. See p. 20.

— Neolitsea (Bentham) Merrill, nomen conservandum propositum. Jour. Arnold Arb. 29: 198-200. 1948.

Rejection of the earlier name Bryantea Raf. (1838) recommended because of the large number of binomials involved.

Rafinesque, With Notes on His Publications in the Harvard Libraries. Harvard Libr. Bull. 2: 5-21. 1948.

— Foreword [to the 1948 reprint of Rafinesque Précis

des découvertes somiologiques ou zoologiques et botaniques]. [1-2]. Peter Smith. New York. 1948.

— & Sandwith, N. Y. On the Identity of the Genera

Cupulissa Raf. and Platolaria Raf. Jour. Arnold Arb. 28:

430-434. 1947. Both genera reduced to Anemopaegma Mart. (1845), and

the latter recommended for conservation against Rafinesque's earlier names because of the large number of binomials involved.

 Merriman, D. [Review of] A Life of Travels; by C. S. Rafinesque, 1944 reprint. Am. Jour. Sci. 243: 109-110. 1945.
 Packard, F. R. History of Medicine in the United States 1: i-xxv. 1-656. fig. 1-67; 2: i-xi. 1-1323, fig. 68-103. 1931.
 Brief notes on Rafinesque 1: 473, 2: 1227, 1229, 1231
 (portr.)

Peattie, D. C. Green Laurels. The Lives and Achievements of the Great Naturalists. i-xxiii. 1-368, illus. 1936. Rafinesque, xxi, 166, 245, 261. The significance of his

work grossly exaggerated; see p. 50.

Pennell, F. W. "Unrecorded" Genera of Rafinesque—1. Autikon
Botanikon (1840). Bull. Torrey Bot. Club 48: 89-96. 1921.

Some Overlooked Scrophulariaceae of Rafinesque. Torreya 22: 77-84. 1922.

Elias Durand and His Association With the Academy of Natural Sciences of Philadelphia. Bartonia 17: 33-39.

1936.

New Light on Rafinesque. Chron. Bot. 6: 125-126. 1940.

Botanical Collectors of the Philadelphia Local Area. Bartonia 21: 38-57. 1942.

Includes important data regarding Rafinesque's herbarium,

pp. 50-55.

— The Life and Work of Rafinesque. Transylv. College Bull. 15 (7): 10-70. 1942.

One of the few modern papers that actually includes a great many new data regarding the life of that errant naturalist.

 Critical Index with Explanatory Comments [to the 1944 reproduction of Rafinesque's "Life of Travels"]. Chron. Bot. 8: 354-360. 1944.

How Durand Acquired Rafinesque's Herbarium. Bartonia 23: 43-46. 1945.

At a cost of \$45.00 to cover storage charges following

Rafinesque's death, see p. 37.

Perkins, S. E., III. Letters by Rafinesque to Dr. Short in the Filson Club Archives. Filson Club Hist. Quart. 12: 200-239. 1938.

Pilsbury, H. A. Rafinesque's Genera of Fresh Water Snails. Nautilus 30: 109-114. 1917.

Rehder, A. Note on Basilima and Schizonotus of Rafinesque. Bot. Gaz. 35: 56-58. 1901.

Rhoads, S. N. Rafinesque as an Ornithologist. Cassinia 15: 1-12. portr. 1911 [1912].

Additions to the Known Ornithological Writings of C. S. Rafinesque. Auk 29: 191-198. 1912.

Includes reproductions of two papers by Rafinesque originally published in the Kentucky Gazette in 1822 as The Cosmonist, nos. 3 and 4, with notes; The Cosmonist no. 3 additional to Fitzpatrick no. 437, no. 4 supplementary to Fitzpatrick no. 438.

Ornithological Notes of Rafinesque in the Western Review and Miscellaneous Magazine, Lexington, Ky. Auk 29:

401. 1912. Brief abstracts of Rafinesque's notes on birds and on

meteorological subjects. Rickett, H. W. The Names of Cornus. Torreya 42: 11-14.

Considers certain Rafinesque names. See Farwell, O. A.,

Cornus Again. Torreya 42: 131. 1942.

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deria Cunningh. (1931) is rejected for this genus.

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tion of his work, p. 119, 266, 275, 339-343.

Smyth, S. G. Rafinesque. The Errant Naturalist. Hist. Soc. Montgomery County [Pa.]. Historical Sketches 6: 300-341. 1 pl. 1929.

Sprengel, K. Florula Ludoviciana, 1817. Jahrb. Gewächsk. 1(2): 165-166. 1819.

A review of Rafinesque's Florula Ludoviciana.

Constant. Sam. Rafinesque's neueste Entdeckungen.
 Spreng. Neue Entdeck. 1: 142-146. 1820.

A summary of Rafinesque's papers that appeared in vol. 1, no. 2, Am. Jour. Sci. and vol. 4, no. 1 and 3, Am. Monthly Mag. Crit. Rev., his descriptions of new plant species reproduced.

Silliman's American Journal, Vol. 1, n. 3, 4. Spreng.

Neue Entdeck. 2: 206-208. 1821.

Includes summaries of Rafinesque's papers on Flörkea,

Cylactis, Nemopanthus, and Myosurus.

Stearn, W. T. Ipheion uniflorum (syns. Triteleia, Milla, Brodiaea, and Beauverdia uniflora). Gard. Chron. III.

114: 60-61. fig. 31-32. 1943.

Ipheion Raf. (1837) accepted, the new genus Beauverdia Herter having been proposed in 1941. The species was placed by earlier authors in Triteleia, Milla, Brodiaea, Leucocoryne, and Hookera, and finally made the type of a new genus: Beauverdia Herter (1941)=Ipheion Raf. (1837).

Steudel, E. G. Ueber C. F. [sic!] Rafinesque in Philadelphia literarische Arbeiten und Tausch-Anerbietungen. Flora 3 (1). Beil. 2: 33-42. 1820.

Strobl, G. Flora des Etna. Oester. Bot. Zeitschr. 30: 363-371. 1880.

On p. 365 is a brief summary of Rafinesque's work on the Etna flora. Strobl states that he saw Rafinesque specimens in Gussone's herbarium at the Naples Botanical Museum.

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221. 1945. An excellent summary of Rafinesque's book, with important observations on the significance of Rafinesque's

contributions, with numerous footnotes and references. Tidestrom, I. Notes on Peltandra, Rafinesque. Rhodora 12: 47-50 pl. 83. 1910.

Tornabene, F. Quadro storico della botanica in Sicilia che serve di prolusione all' anno scolastico 1846 e 1847 nella Regia

Università degli studi in Catania. 1-70. 1847.

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Lists the independently published Rafinesque works available in the libraries of the British Museum and the British Museum (Natural History), with a list of desiderata compiled from Fitzpatrick's Rafinesque bibliography.

Walker, B. The Rafinesque-Poulson Unios. Nautilus 30: 43-47. 1916.

Medical Consultation on the Case of Daniel Vanslyke. By C. S. Rafinesque, Pulmist &c. Philadelphia, 10th Sept. 1830. Bull. Hist. Medicine 18: 424-437. 1945. Introductory matter by Mabel Clare Weaks, body of the text a reproduction of Rafinesque's holographic report on this case; see p. 39.

Weatherby, C. A. Rafinesque Types in the Group of Acalypha virginica. Rhodora 42: 96. 1940.

Weer, P. Provenience of the Walam Olum. Proc. Indiana Acad. Sci. 51: 55-59. 1942.

Concerns Rafinesque's association with "Dr. Ward of Indiana" from whom he says he secured the document on which his translation of the Walam Olum was based.

Weiss, H. B. Rafinesque's Kentucky Friends. 1-70. 25 pl. 1936. The illustrations are reproductions of Rafinesque's sketches of various individuals he knew, chiefly residents of Kentucky. Privately printed. Highland Park, N. J.

Rafinesque's Pulmel. Jour. N. Y. Entomol. Soc. 55: 294.

A brief note.

Welden, L. von. Rafinesque Entdeckung neuer Gewächse im

Schwimmen. Flora 5 (2): 719. 1822. In the text this appears as "Curiosa"; the above title appears in the table of contents, p. 86, Sechste Beilage. Reproduced p. 53.

Whaler, J. Green River, a Poem for Rafinesque. 1-153. 1931. New York.

Wheeler, L. C. History and Orthography of the Celastraceous Genus "Pachystima" Rafinesque. Am. Midl. Nat. 29: 792-795. 1943.

Accepts Paxistima Raf.

The Genera of the Living Euphorbieae. Am. Midl. Nat. 30: 456-503. 1943.

Includes reductions of Rafinesque's proposed genera in this group, with critical notes.

Wood, R. D. On Rafinesque's Names for the Characeae. Bull.

Torr. Bot. Club 75: 282-285. 1948.

Zabel, H. Ueber Rafinesquesche Pflanzennamen. Mitt. Deutsch. Dendrol. Ges. 1899: 74-77. 1899.

A critique of Pseva Raf., Joxylon Raf., and Rafinesque's species of Rosa.

### CERTAIN STATISTICS

I note in connection with this study that there are about 14,400 references in Rafinesque's own publications to genera, subgenera or sections, species and varieties where the names used originated with him. In addition there are many thousands of entries of names proposed by other authors that Rafinesque recognized and accepted; but the latter are beyond the scope of this paper. The chief objective here has been to list the overlooked Rafinesque names, the complete index to both listed and unlisted ones being an outgrowth of this endeavor.

Rafinesque's new generic names total about 2700, and of these 740 still remain unlisted in our standard indices. He also originated and published about 335 new subgeneric and sectional names, very few of which have even been noticed by his successors, although occasionally one has been adopted in the category to which Rafinesque assigned it. The total number of new Rafinesque binomials is about 6700, an extraordinarily large number if we may judge by the totals of a Linnaeus, a Hooker, a De Candolle, a Kunth, or an Engler. Of these approximately 2560 remain unlisted. The total number of unlisted Rafinesque new generic names and new binomials a century or more after they were published is thus about 3300; and as the majority of these appertain to North American botany, I insist that it is a reflection on the bibliographic work of North American taxonomists that they have remained unlisted for so long.

In the last category, varieties, Rafinesque proposed about 900 as new, but a very high percentage of these are strictly nomina nuda and as such have no standing; very few of those that were actually described were ever recognized by Rafinesque's successors.

In addition to the above there are about 330 corrections to be made in already listed Rafinesque names, these occasionally being due to errors in transcription but more often merely because earlier places of actual publication appear.

#### GENERA

It was in the category of proposing new genera of plants that Rafinesque figuratively outdid himself; and it was in this field that he not only antagonized all of his contemporaries in Europe and in America, but prejudiced future generations of botanists against him. As a matter of fact he originated more new generic names for plants than any other botanist in the whole history of plant science, and we cannot blind ourselves to the fact that among those authors who proposed many new names, the percentage of acceptance of Rafinesque names by his contemporaries and successors is the very lowest. His nearest competitor in publishing was Linnaeus, with about 1440 generic names, most of which were adopted from the works of his predecessors issued previous to the time that Linnaeus evolved the binomial system of nomenclature in 1753. Rafinesque, including variant spellings, originated about 2700 new generic names. If one be interested in contrasts one will immediately recognize the fact that while nearly all of the generic names used by Linnaeus are still universally accepted, the universally accepted Rafinesque names approximate only about 30, an infinitesimally small proportion; and even if we consider all of the Rafinesque names that would be valid on the basis of strict priority, including also those Rafinesque segregates that within the present century have been reinstated largely by the New York school (Britton, Rydberg, Small, and others), the number would be increased by about 75. The total number, all categories, included in the tabulation, p. 20, involving the generic names for the cellular cryptogams, which have received very little consideration, is only about 290, only slightly in excess of one percent. It is no wonder that among his contemporaries, Amos Eaton, Manual ed. 3, 414, 1822, protested against the very numerous proposed changes (not that he accepted many Rafinesque names), for undoubtedly the passage quoted below was directed against Rafinesque, and to a lesser degree against Nuttall and others:

"The present rage for cutting up genera has gained such an ascendency, that I am compelled to yield to it, though with pain and regret. Every artificial character is seized with greadiness (sic!) and applied with great ingenuity to mangling the Linnean system of genera. I consider it the ephemeral reign of innovators, which our successors will remember but to despise. And most of these new names which are founded upon artificial characters will soon sleep with their authors."

Rafinesque at various times stated his own principles, and we must confess that he rather consistently followed his own ideas in the subdivisions of large genera and in recognizing an inordinate number of new genera, subgenera, species, and varieties of plants; he was at least consistent. Following the last exposition of his ideas, which are grouped under eight generalizations, *Flora Telluriana* 1: 14-16. 1836 [1837] he says:

"Such exposition of my principles, and explanation of motives were perhaps needful, when I am going to increase the generic groups, perhaps beyond any thing ever done of the kind. Linneus had only 1444 genera in his last edition towards 1778; Persoon in 1807 had already 2300 phanegamous genera. Jussieu in 1789 had nearly 2000; but Necker in 1790 only 1842. The 48 Cryptogamic Genera of Linneus have swollen to 400. Every year and every writer adds to the number. Ever since 1815 I had ascertained and classified nearly 3000, whereof 500 were my own. It is this labor, indicated in my analysis of Nature, that I now propose to enlarge, rectify and publish: whereby as many as Linneus ever had will be added or revised, and about 1000 will be totally new, even now, as late as 1836, or not yet generally adopted.

"Altho" this attempt may astonish or perplex some timid Botanists, my labors will be duly appreciated ere long, and my increasing efforts to improve the science meet with a kind reception from the new improving school. The axiom that a multiplication of names enlarges our ideas, holds true in all cases and sciences, since they are based on facts or mental entities. Some Linneists have vainly tried to throw discredit on generic reform, and called us Genera-mongers. We may in return call them Genera-Shufflers, who want to squeeze plants into improper genera, and delay improvements by opposing the corrections of botanical blunders. It is to them that we owe the superfluity of synonyms: they often shuffle plants into 3 or 4 Genera, as Linneus did for Heliopsis, until it must at last form a Genus of itself. It is a fact that almost all plants of doubtful Genera, are types of peculiar ones; the chances of it increase, as they are shifted."

There is more than a grain of truth in this last statement, as the case of *Beauverdia* Herter indicates. This was described by Herter as a new genus in 1941 in ignorance of the fact that his type-species had been selected by Rafinesque 104 years earlier as the type of the latter's new genus *Ipheion*. Thus *Beauverdia uniflora* (Grah.) Herter (1941)=*Ipheion uniflorum* (Grah.) Raf. (1837). The species had been placed by various authors in *Tritelea*, *Milla*, *Brodiaea*, *Leucocoryne*, and *Hookera*; see Stearn, Gard. Chron. III. 114: 60. 1943. Clearly in a case like this, if one wishes to retain the entity as of generic rank *Ipheion* Raf. (1837) should be accepted as preferable to *Beauverdia* Herter (1941).

Following the establishment of the Linnaean system of binomial nomenclature in 1753 the tendency of his successors for much of the remainder of the century was to interpret his genera on a broad basis and greatly to expand the limits of many which he established. One judges that the average botanist of the time tried to force his new species into the Linnaean concepts of generic limits, and thus in many cases they were expanded beyond all reason; and this Rafinesque clearly appreciated. Gradually it was realized that the number of distinct plant genera was very much greater than Linnaeus had thought. Particularly during the first few decades of the nineteenth century hundreds of new genera were proposed and described, especially by European botanists. This was a time when great collections of botanical material were being received in Europe from all parts of the world, and this period of expanding the total number of genera corresponded with Rafinesque's publishing activities. It is of some interest to note that in approximately 200 cases, where Rafinesque proposed new generic names, other botanists had anticipated him by from a fraction of a year to ten years, and that their names have been accepted as valid by all botanists. The trouble here was that Rafinesque was not sufficiently informed regarding the generic proposals of his contemporaries, particularly those working in Europe. If, in these cases, Rafinesque's proposals had been published a few years earlier, then the number of his generic names having priority would be very greatly increased. Viewed in this light, while one may still criticize Rafinesque on his unbridled tendency to name and describe new genera, one can but feel that he was, in general, justified to a very considerable degree. At any rate, Eaton had no valid grounds for criticizing the botanists of his time who were "mangling the Linnaean system of genera."

## SUBDIVISIONS OF LARGE GENERA

It does not seem necessary or desirable to list all of the genera that Rafinesque subdivided, but here are some illustrative cases. From Acer Linn., Rafinesque segregated, named, and defined seven groups; from Allium Linn., 16; from Aristolochia Linn., 20; from Aster Linn., 18; from Bignonia Linn., 16; from Carex Linn., 30; from Cassia Linn., 20; from Cleome Linn., 15; from Commelina Linn., 10; from Convolvulus Linn. and Ipomoea Linn., 80; from Cordia Linn., 13; from Epidendrum Linn., 15; from Euphorbia Linn., 38; from Ficus Linn., 18; from Gentiana Linn., 20; from Ilex Linn., 12; from Justicia Linn., 35; from Melastoma Linn., 23; from Piper Linn., 9; from Passiflora Linn., 15; from Polygonum Linn., 20; from Quercus Linn., 14; from Salix Linn., 26; from Salvia Linn., 25; from Saxifraga Linn., 12; from Solidago Linn., 14; from Tradescantia Linn., 11; from Utricularia Linn., 18; and from Vitis Linn. (including Cissus Linn.), 14.

It is no wonder that individuals like Britton, Schlechter, and others, in subdividing certain large and polymorphous or collective genera, found Rafinesque's work a fertile field for names that they needed, for he had already originated and published many of them; and it is no wonder that others who have similarly segregated smaller genera from large ones, and who did not critically consider the possibilities offered by Rafinesque's work, erred in proposing totally unnecessary new generic names which now fall before those of Rafinesque legitimately published a century earlier. See p. 25.

One cannot, in some cases, escape the conviction that some individuals refuse to follow the finer generic segregates of certain authors, perhaps largely because of the fact that in numerous cases the proponents of this policy have, from the standpoint of botanical nomenclature, correctly reinstated Rafinesque names that had long been buried in the limbo of synonymy. Thus it is that because of Rafinesque's insistence on continuing to publish, in spite of the criticisms of his associates, he is still penalized, and doubtless always will be, by that intangible but never-the-less effective taboo that

is placed on erratic work in natural history. It is not flattering to any systematist when one notes that a century or more after an author's death less than 300 of his 2700 published generic names have been recognized by any author as valid for this or that group. Of these occasionally or generally accepted names only about 30 are universally adopted by all botanists. About 90 have been eliminated by official action in favor of later names proposed by other authors. In about 70 additional cases it is clear that the Rafinesque names have priority, but they still remain to be accepted or officially rejected.

RAFINESQUE GENERIC NAMES, VALID ON THE BASIS OF STRICT PRIORITY IN DATES OF PUBLICATION

In the following tabulation accepted names in the approved lists of nomina generica conservanda are marked with an asterisk (\*) and appear in this list in black face type. Universally accepted Rafinesque generic names are marked with an exclamation point (!). In addition to these two categories the valid Rafinesque names, under the present rules of nomenclature, are marked with a dagger (†). Names marked with the sign § indicate their having been reinstated either by a single or by several recent botanists chiefly within the present century. In general, but not always, the latter names are those adopted by that school of botanists who believe in basing genera on minor characters, the "splitters" as opposed to the "lumpers"; the former can scarcely be called the progressives, but the latter are definitely the conservatives. The sign # indicates certain groups that were originally characterized by Rafinesque as subgenera, for which later authors have proposed and published other names as representing genera; had Rafinesque's propositions been realized or appreciated his names could have been accepted as of generic rank, thus obviating the selection of entirely new names in several cases.

Eliminating the 90 Rafinesque names that have priority but which have been officially rejected in favor of later and more generally used ones of other authors there still remain about 70 cases where, on the basis of the present international rules of nomenclature, Rafinesque's names could or should be accepted in preference to those proposed by later authors and now in current use. It is suspected, however, that in the course of time many of these Rafinesque earlier names will be placed in the rejected list to avoid further changes in nomenclature. This procedure is left to the specialists, either those who are prosecuting general monographic work, or who are, on the basis of wide experience, thoroughly familiar with the flora of this or that area.

For an explanation of the meanings of the special marks preceding the names in this list see above. The indicated reductions of the names for the cellular cryptogams may be considered more as suggestions than as thoroughly established. Mycologists and algologists

have not, as a rule, made critical studies of Rafinesque's proposals in this group.

ALGAE:

Acinaria Raf., 1819, non Donati, 1753=? Nitella Agardh,

Amasperma Raf., 1814=? \*Ceramium Agardh, 1817.
†Arthrodia Raf., 1814=Roya W. & G. West, 1896=Closterium Nitzsch., 1817, sensu lat.
Colophermum Raf., 1814=\*Ectocarpus Lyngb., 1819.
†Dictilema Raf., 1814=Microdictyon Decne., 1839.

Episperma Raf., 1814=\*Ceramium Agardh, 1817. †Liacina Raf., 1825=Tolypella R. Br., 1849. Opospermum Raf., 1814=\*Elachista Duby, 1832. †Phoracis Raf., 1810=Grateloupia Agardh, 1822.

\*\*Actioophora Raf., 1806; 1814=Arachnion Schwein., 1822. Aedycia Raf., 1808=? \*\*Mutinus Fries, 1849. †Colonnaria Raf., 1806 (Linderia G. H. Cunningh., 1931); see Santesson, Svensk Bot. Tijdskr. 37: 287-303. 1943. †Gemmularia Raf., 1819=Pachyma Fries, 1823. †Hydromycus Raf., 1808=Dacryomycus Nees 1821.

†Hydromycus Raf., 1808=Dacryomyces Nees, 1821. †Hypolepia Raf., 1808=Dacryomyces Nees, 1821. †Odontium Raf., 1817=Odontia (Pers.) P. Henn., 1897.

!Pteritis Raf., 1818 (Struthiopteris Willd., 1809, non Weis., 1770; Metteuccia Tenore, 1866; Pterinoides O. Kuntze, 1891).

TAXACEAE:

Tumion Raf., 1840=\*Torreya Arn., 1838, non Raf., 1818.

ALISMATACEAE:

†Luronium Raf., 1840=Elisma Buchen., 1869.

HYDROCHARITACEAE:

†Philotria Raf., 1818 (Udora Nutt., 1818).

§Amphicarpon Raf., 1818=Amphicarpum Kunth, 1829. Bulbilis Raf., 1819=\*Buchloë Engelm., 1859. Diarina Raf., 1808=\*Diarrhena Beauv., 1812.

!Distichlis Raf. 1819. §Phanopyrum Raf., 1830, ut sect. Panicum Linn.=Phanopyrum (Raf.) Nash=Panicum Linn. †Rytilix Raf., 1830=Hackelochloa O. Kuntze, 1891.

!Sitanion Raf., 1819.

§Steinchisma Raf., 1830=Panicum Linn.

Stenophyllus Raf., 1825=\*Bulbostylis Kunth, 1837.

Megotigea Raf., 1837=\*Helicodicerus Schott, 1853. !Peltandra Raf., 1817 (Lecontia Cooper, 1826; Rensselaeria Beck, 1833).

†Pleuropsa Raf., 1838=Montrichardia Crueg., 1854. Spathyema Raf., 1808=\*Symplocarpus Salisb., 1818.

Bromeliaceae:

§Dendropogon Raf., 1825=Tillandsia Linn. Hexalepis Raf., 1838=\*Vriesea Lindl., 1843.

COMMELINACEAE: 21

†Dilasia Raf., 1838 (Murdannia Royle, 1839; Dichoespermum Wight, 1853; Prionostachys Hassk., 1866; Baulia A. Chev., 1912; Phaeneilema Brückn., 1926).

Heminema Raf., 1837—§Tripogandra Raf., 1837. §Phyodina Raf., 1837 (Cuthbertia Small, 1903; Tradescantella Small, 1903).

Pogomesia Raf., 1837=\*Tinantia Scheidw., 183 †Siderasis Raf., 1837=Pyrrheima Hassk., 1869. 1839.

Streptylis Raf., 1838=§Dilasia Raf., 1838. †Tripogandra Raf., 1837 (Heminema Raf., 1837; Descantaria Schlecht., 1853; Disgrega Hassk., 1866).

Piaropus Raf., 1837=\*Eichhornia Kunth, 1843.

#### LILIACEAE:

Amblostima Raf., 1837=\*Schoenolirium Durand, 1855. Anepsa Raf., 1837=\*Stenanthium (A. Gray) Kunth, 1843 (Veratrum Linn., subgen. Stenanthium A. Gray, 1837). †Aphoma Raf., 1837=Iphigenia Kunth, 1843.

Bulbedulis Raf., 1837=\*Camassia Lindl., 1832. Chrosperma Raf., 1825 (Crosperma Raf., 1838)=\*Amianthium A. Gray, 1848.

Clintonia Raf., 1817.

Cyanotris Raf., 1818=\*Camassia Lindl., 1832.

Geboscon Raf., 1824, 1833=\*Nothoscordum Kunth, 1843.

†Hexonix Raf., 1837=Heloniopsis A. Gray, 1859.

†Ipheion Raf., 1837=Beauverdia Herter, 1941. 22

†Kozola Raf., 1837=Heloniopsis A. Gray, 1859.

Laothoe Raf., 1837=\*Chlorogalum Kunth, 1843. Oxytria Raf., 1837 — Schoenolirium Durand, 1855.

Pubilaria Raf., 1837 — Schoenolirium Durand, 1855.

Pubilaria Raf., 1837 — Simethis Kunth, 1843.

Quamasia Raf., 1818 — \*Camassia Lindl., 1832.

\*\*Schodilla Raf. 1837 — Schodilla Panal \*\* Panal 1927 — 192

†Sabadilla Raf., 1837=Sabadilla Brandt & Ratzeb., 1837=Schoenocaulon A. Gray, 1837.28

†Siraitos Raf., 1838=Chionographis Maxim., 1867.

#### IRIDACEAE:

SOlsynium Raf., 1836=Sisyrinchium Linn. †Phaiophleps Raf., 1838=Symphyostemon Miers, 1841.

#### Orchidaceae:

†Adipe Raf., 1837=Bifrenaria Lindl., 1843. §Blephariglottis [Blepharioglotis] Raf., 1837=Habenaria Willd., 1805.

†Caularthron Raf., 1837=Diacrium Benth., 1881. Cordula Raf., 1838=\*Paphiopedilum Pfitz., 1886. \$Criosanthes Raf., 1818=Cypripedium Linn. †Deppia Raf., 1837=Lycaste Lindl., 1843. †Dilomilis Raf., 1838=Octadesmia Benth., 1881.

Diphryllum Raf., 1808=\*Listera R. Br., 1813. §Dothilophis Raf., 1838=Epidendrum Linn.

Galearis Raf., 1833=§Galeorchis Rydb., 1901=Cypripedium Linn.

Gynizodon Raf., 1838 (not 1836) = \*Miltonia Lindl., 1837 (conservation was not necessary).

!Hexalectris Raf., 1835.

!Isotria Raf., 1806.

†Jimensia Raf., 1838=Bletilla Reichb. f., 1851-53.

Menephora Raf., 1838=Cordula Raf., 1838=\*Paphiopedilum Pfitz., 1886.

§Nyctosma Raf., 1837=Epidendrum Linn.

Pecteilis Raf., 1837=§Hemihabenaria Finet, 1901=Habenaria Willid., 1805.
Stimegas Raf., 1838=Cordula Raf., 1838=\*Paphiopedilum

Pfitz., 1886.

Tulotis Raf., 1833=§Perularia Lindl., 1835=Habenaria Willd., 1805.

#### **JUGLANDACEAE:**

Hicorius Raf., 1817=\*Carya Nutt., 1818. Scoria Raf., 1808=\*Carya Nutt., 1818.

<sup>22</sup> See Stearn, W. T. Ipheion uniflorum (syns. Triteleia, Milla, Brodiaea, and Beauverdia uniflora). Gard, Chron, III. 114: 60-61. fig. 31-32. 1943. See also Stethoma Raf. (1838) which replaces Psacadocalymma Bremek. (1948), in the Acanthaceae.

28 Here are three generic names published independently by three different authors in the same year, for the same species. It is not improbable that the actual date of publication of the three works could be determined with sufficiently reasonable accuracy to determine which of the three has actual priority (Rafinesque's work appeared not later than March, 1837). Here it would seem to be logical to conserve the widely used name Schoenocaulon A. Gray, for which, incidentally, in 1838 (not in 1836 as recorded) Rafinesque actually published the new generic name Skoinolon Raf. It may be noted that Rafinesque published Sabadilla officinalis in 1837, and that Standley published the same transfer in 1927. The basis of both was Veratrum sabadilla Retz.

<sup>&</sup>lt;sup>21</sup> For the latest consideration of generic limits and accepted names in this family see Pichon, M. Sur les Commélinacées. Not. Syst. 12: 217-242. 1946.

FAGACEAE: 24

†Arcaula Raf. 1838=Pasania Oerst., 1866. †Balanaulax Raf., 1838=Pasania Oerst., 1866. †Balanoplis Raf., 1838=Castanopsis (D. Don) Spach, 1842 (Quercus Linn., sect. Castanopsis D. Don, 1825). †Perytis Raf., 1838=Cyclobalanopsis Oerst., 1866.

MORACEAE: 25

Ioxylon Raf., 1817 (Toxylon Raf., 1818; Joxylon Raf., 1819; Xoxylon Raf., 1819=\*Maclura Nutt., 1818.

Adicea Raf., 1815 (Adesia Raf., 1822; Adike Raf., 1836) = \*Pilea Lindl., 1821.

†Glutago Comm. ex Poir., 1821, et sensu Raf., 1838=Oryc-

tanthus Eichl., 1868.
†Hemitria Raf., 1820=Phthirusa Mart., 1830. †Steirotis Raf., 1820 = Struthanthus Mart., 1830.

SANTALACEAE:

§Nestronia Raf., 1838=§Darbya A. Gray, 1846=\*Buckleya Torr., 1843, sensu lat.

ARISTOLOCHIACEAE:

§Hexastylis Raf., 1825=Asarum Linn. §Isotrema Raf., 1817=Aristolochia Linn.

POLYGONACEAE :

Calacinum Raf., 1837=\*Muehlenbeckia Meissn., 1840. Karkinetron Raf., 1837=\*Muehlenbeckia Meissn., 1840. Phyllepidium Raf., 1808=§Delopyrum Small, 1913=Polygonella Michx., 1803.

§Tracaulon Raf., 1837=Polygonum Linn.

<sup>24</sup> Currently the tendency is to subdivide the large collective genera such as Quercus Linn., and Castanopsis (D. Don) Spach. In addition to Castanopsis Spach, Cyclobalanopsis Oerst., and Pasania Oerst., which are antedated by validly published generic names proposed by Rafinesque, various sectional or subgeneric names proposed by the latter might replace more recently published ones of other authors for the same groups, such as Limodris Raf., 1838, and Phellodrys Raf., 1838= Erythrobalanos Spach, 1842, while as generic names Cerris Raf., Dryopsila Raf., and Scolodrys Raf. are earlier than subgeneric or sectional names proposed by later authors, such as Lepidobalanus (Endl.) Oerst. and Erythrobalanus Oerst.

<sup>25</sup> Under existing rules it would be possible to replace several of the currently used sectional names for Ficus Linn., or proposed generic segregates, by such authors as Gasparini (1844), Miquel (1847-48; 1867); Bentham (1880); and King (1888). Rafinesque, Sylva Telluriana 57. 1838, says: "No one having thought to revise the genus [Ficus], I will do it as to Genera, by habit and outer visible parts, chiefly the outer calicule and ombilic of the perianthe and fruit called by others receptacle." He then proceeded briefly to characterize eight genera of which Gonosuke Raf., 1838, would replace Covellia Gasp., 1844; Mastosuke Raf., Oluntos Raf., Perula Raf., and Rephesis Raf., 1838=Urostigma Gasp., 1844; Necalistis Raf., 1838=Ficus Linn., sect. Sycidium King, 1887; Tremotis Raf., 1838=Synoecia Mig., 1848; and Varinga Raf., 1838=Ficus Linn., sect. Eusyce Benth., 1880. In addition he also characterized six new subgenera of Ficus of which Cottana Raf., 1838=Ficus Linn., sect. Urostigma (Gasp.) Endl., 1847, Spherosuki Raf. 1838, also being the equivalent of Urostigma (Gasp.) Endl.; Kenkramis Raf. and Sukomorus Raf., 1838=Ficus Linn., sect. Eusyce Benth. 1880; Sukeon Raf., 1838=Ficus Linn., sect. Neomorphe King, 1888; and Tarega Raf., 1838=Ficus Linn., sect. Sycidium King, 1887. Sections of Spherosuke Raf. are Leiosuke Raf., Sukoisia, Raf., Traxisuke Raf., and Tulosuke Raf., all referable to *Urostigma* (Gasp.) Endl., characterized solely as to whether the fruits are "smooth or rough or villose or tuberculate." I have given no consideration to Sata's proposals for subsidiary names in Ficus, Jap. Jour. Bot. 10: 343-351. 1934, and as further amplified in his extensive 1944 work on the Formosan and Philippine species of the genus. Like all other authors he overlooked Rafinesque's proposals.

CHENOPODIACEAE:

!Ofaiston Raf., 1837.

CARYOPHYLLACEAE:

Amorgyne Raf., 1838=\*Siphonychia Torr. & Gray, 1838. Bunilis Raf., 1838=\*Siphonychia Torr. & Gray, 1838. Plagidia Raf., 1838=§Gastronychia Small, 1933=Paronychia Mill., 1754.

RANUNCULACEAE:

!Enemion Raf., 1820.

BERBERIDACEAE:

Odostemon Raf., 1818=\*Mahonia Nutt., 1818.

ANNONACEAE:

Cananga Raf., 1815=\*Cananga Hook. f. & Th., 1855, non Aubl. (Canangium Baill., 1878).
Glyptomeles Collins ex Raf., nomen nudum, 1840=§Pity-

othamnus Small, 1933=Asimina Adans., 1763.

†Bryantea Raf., 1838=Neolitsea (Benth.) Merr., 1905 (Litsea Lam., sect. Neolitsea Benth., 1880).

\*Adlumia Raf., 1808 (Bicucullia Borkh., 1797).

†Discovium Raf., 1819=Lesquerella S. Wats., 1888 Oclorosis Raf., 1834=Iodanthus Torr. & Gray, 1838.

CAPPARIDACEAE:

§Jacksonia Raf., 1808=seq.

!Polanisia Raf. 1818, 1819.
Tarenaya Raf., 1813=§Neocleome Small, 1933=Cleome Linn.

Reseduceae:

Dipetalia Raf., 1837=\*Oligomeris Camb., 1838 (Ellimia Nutt., 1838).

Hexastylis Raf., 1837, non Raf., 1825=\*Caylusea St. Hil., 1837 (conservation was not necessary).

Stylexia Raf., 1838=\*Caylusea St. Hil., 1837 (conserva-

tion was not necessary).

Hemieva Raf., 1837=\*Suksdorfia A. Gray, 1880.

\*\*September Agi, 1837—Saxifraga Linn.

\*\*Leptaxis Raf., 1837=\*Tolmiea Torr. & Gray, 1840.

\*\*Somelis Raf., 1837=Mitella Linn.

\*\*Pectiantia Raf., 1837=Mitella Linn.

\*\*September Raf., 1837=Mitella Linn.

\*\*September Raf., 1837=Mitella Linn.

\*\*Stationalisis Raf. 1837=Mitella Linn.

§Steiranisia Raf., 1836=Heterisia Raf., 1837=Saxifraga Linn.

§Telesonix Raf., 1837=\*Boykinia Nutt., 1834, non Raf., 1825.

§Therofon Raf., 1838=\*Boykinia Nutt., 1834, non Raf., 1825.

Amelancus Raf., 1837=§Amelancus F. Müll. & Vollm., 1914 = Amelanchier Medic., 1789.

Basilima Raf., 1814, 1838 = \*Sorbaria A. Braun, 1864

(Schizonotus Lindl., 1829).

Chimanthus Raf., 1817=§Laureocerasus (Tourn.) Reichb.

1828=Prunus Linn. §Dasiphora Raf., 1840=Potentilla Linn.

†Eleiosina Raf., 1838=Siberaea Maxim., 1878. Epicostorus Raf., 1832=\*Physocarpus Maxim., 1879 (Opu-

laster Medic., 1799).

Ictorus Raf., 1839=\*Physocarpus Maxim., 1879 (Opulaster

Medic., 1799).

Physocarpa Raf., 1838 (Spiraea Linn., sect. Physocarpus Cambess., 1824) = Physocarpos Raf., 1834 = Physotheca Raf., 1838=\*Physocarpus Maxim., 1879 (Opulaster Medic., 1799).

Schizonotus Raf., 1838=\*Holodiscus Maxim., 1879. Sericotheca Raf., 1838=\*Holodiscus Maxim., 1879. §Stylypus Raf., 1825=Geum Linn.

LEGUMINOSAE:

\$Acmispon Raf., 1838=Hosackia Dougl., 1829. \$Adipera Raf., 1838=Cassia Linn. \$Asacara Raf., 1825=Gleditsia Linn. Bradburya Raf., 1817=\*Centrosema Benth., 1858. !Cladrastis Raf., 1824 (Platyosprion Maxim., 1876).

LEGUMINOSAE (Continued):

§Delonyx Raf., 1837 (Poinciana auctt., non Linn.).

Diplomix Raf., 1817=\*Wisteria Nutt., 1818 (Krauhina Raf., 1808; Thyrsanthus Ell., 1817). SDitremexa Raf., 1838 = Cassia Linn. SEmelista Raf., 1838 = Cassia Linn. †Esclerona Raf., 1838 = Xylia Benth., 1842. §Herpetica Raf., 1838=Cassia Linn. §Isandrina Raf., 1838= Cassia Linn. Krauhnia Raf., 1808=\*Wisteria Nutt., 1818 (Thyrsanthus Ell., 1817) \$Lomoplis Raf., 1838=Mimosa Linn. \$Neltuma Raf., 1838=Prosopis Linn. \$Orbexilum Raf., 1832=Psoralea Linn. \$Peiranisia Raf., 1838=Cassia Linn. \$Poponax Raf., 1838=Acacia Willd. Savia Raf., 1808=\*Amphicarpa Ell., 1818 (Falcata J. F. Gmel., 1791). RUTACEAE:

§Poncirus Raf. 1838.

MELIACEAE:

Mioptrila Raf., 1838=§Toona M. Roem., 1846=Cedrela P. Browne, 1756.

POLYGALACEAE:

§Anthalogea Raf., 1838=Anthallogea Raf., 1834=Polygala Linn.

§Asemeia Raf., 1833=Polygala Linn. §Pilostaxis Raf., 1838=Polygala Linn. §Triclisperma Raf., 1814=Polygala Linn.

§Agaloma Raf., 1838=Tithymalopsis Klotzsch & Garcke, 1859=Euphorbia Linn.

§Bivonea Raf., 1814=§Cnidoscolus Pohl, 1827=Jatropha Linn.

§Lepadena Raf., 1838=§Dichrophyllum Klotzsch & Garcke, 1859=Euphorbia Linn.

§Zalitea Raf., 1838=Zygophyllidium Small, 1903=Euphorbia Linn.

Anacardiaceae:

§Lobadium Raf., 1819=Rhus Linn.

AQUILFOLIACEAE:

\*Nemopanthus Raf., 1817, 1818 (Ilicoides Dum. Cours., 1802).

CELASTRACEAE:

!Pachistima Raf., 1818 (Pachystima Raf., 1840; Paxistema Raf., 1838).

Semarilla Raf., 1838=\*Gymnosporia Benth. & Hook. f., 1862 (Burglaria Wendl. ex Steud., 1841, nom.; Scytophyllum Eckl. & Zeyh., 1835; Encentrus Presl, 1841; Polyacanthus Presl, 1841).

STAPHYLEACEAE:

†Hebokia Raf., 1838=Euscaphis Sieb. & Zucc. "1835" [1840].

ACERACEAE:

#Clinotrox Raf., 1836, subgen. Acer Linn. = Rufacer Small, 1933 = Acer Linn.

#Eriocarpum Raf., 1836, subgen. Acer Linn. = seq. #Sacharodendron Raf., 1836, subgen. Acer Linn. = Argentacea Small, 1933 (Saccharodendron Nieuwl., 1914) = Acer Linn.

RHAMNACEAE:

Mystacinus Raf., 1838=\*Helinus E. Mey., 1840.

VITACEAE:

1887 1830=\*Parthenocissus Planch., Quinaria Raf., (Psedera Neck., 1790).

GUTTIFERAE:

§Triadenum Raf., 1808=Hypericum Linn.

§Cubelium Raf., 1824=\*Hybanthus Jacq., 1760.

§Nuttallia Raf., 1817=Mentzelia Linn.

ELAEAGNACEAE:

Lepargyrea Raf., 1818=\*Shepherdia Nutt., 1818.

LYTHRACEAE:

§Didiplis Raf., 1833=Peplis Linn.

MYRTACEAE:

†Gomphotis Raf., 1838=Thryptomene Endl., 1838.

MELASTOMATACEAE:

ASTOMATACEAE:

†Alifana Raf., 1838=Brachyotum Triana, 1867.

Ephynes Raf., 1838=\*Monochaetum (DC.) Naud., 1845.

Hedusa Raf., 1838=\*Dissotis Benth., 1849.

†Lomanodia Raf., 1838=Astronidium A. Gray, 1854 (Naudiulla United States)

\*\*Juin Market Presser 1803)

diniella Krasser, 1893).

ONAGRACEAE:

§Meriolix Raf., 1819=Calylophis Spach, 1835=Oenothera Linn.

Umbelliferae:

†Ageomoron Raf., 1840=Astrodaucus Drude, 1898.

Anginon Raf., 1840=Rhyticarpus Sonder, 1862.
Cymopterus Raf., 1819.
Cyrtospermum Raf., 1829, 1830=\*Cryptotaenia DC. (Deeringa Adans., 1763; Aulacospermum Neck., 1790).

(Deeringa Adans., 1703; Autacospermum Neck., 1790).

!Lomatium Raf., 1819.
!Musineon Raf., 1820 (Musenium Nutt., 1840; Daucophyllum Rydb., 1913).
!Oreoxis Raf., 1830.
!Osmorhiza Raf., 1818 (Washingtonia Raf., 1818; Gonatherus Raf., 1818).
!Oxypolis Raf., 1825 (Tiedemannia DC., 1829).
Pachiloma Raf., 1838=\*Polytaenia DC., 1829, non Polytaenium Desv., 1827 (Pleiotaenia Coulter & Rose, 1909; Phanerotaenia St. John, 1919). Phanerotaenia St. John, 1919).
!Ptilimnium Raf., 1819 (Discopleura DC., 1839).
!Spermolepis Raf., 1825.

CORNACEAE:

§Cynoxylon\_Raf., 1828, 1838=Benthamidia Spach, 1839= Cornus Linn.

Pyrolaceae:

§Braxilia Raf., 1840=Erxlebenia Opiz, 1852=Pyrola Linn. §Orthilia Raf., 1840=Ramischia Opiz, 1852=Pyrola Linn.

Ericaceae:

§Polycodium Raf., 1819=Picrococcus Nutt., 1843=Vaccinium Linn.

Xolisma Raf. 1819=\*Lyonia Nutt., 1818, non Ell., 1817.

†Borissa Raf., 1820=Asterolinon Hoffm. & Link, 1820. §Steironema Raf., 1820=Lysimachia Linn.

SAPOTACEAE:

†Spondogona Raf., 1838=Dipholis DC., 1844. #Spondolobus Raf., 1838=Geobalanus Small, 1913= Chrysobalanus Linn. †Xantolis Raf., 1838=Planchonella Pierre, 1890.26

OLEACEAE:

Cartrema Raf., 1838=\$Amarolea Small, 1933=Osmanthus Lour., 1790.

GENTIANACEAE:

Parrasia Raf., 1837=\*Belmontia E. Mey., 1837. Pleinta Raf., 1 Adans., 1763. 1837=§Lapithia Griseb., 1845=Sabatia

ASCLEPIADACEAE:

Anthanotis Raf., 1817=§Asclepiodora A. Gray, 1876= Asclepias Linn.

CONVOLVULACEAE:

†Bonanox Raf., 1821=Calonyction Choisy, 1833. †Diatremis Raf., 1821=§Pharbitis Choisy, 1833.

#Gomphula Raf., 1838=Bonanox Raf., 1821=Calonyction Choisy, 1833.

Stylisma Raf., 1818=Breweria R. Br., 1810. Thyella Raf., 1838=Ipomoea Linn. §Turbina Raf., 1838=Rivea Choisy, 1833.

Hydrophyllaceae:
Capnorea Raf., 1837=\*Hesperochiron S. Wats., 1871.
Cohiba Raf., 1837=\*Wigandia H.B.K., 1818, non Neck., 1790.

§Decemium Raf., 1817=Hydrophyllum Linn.

<sup>26</sup> Baehni, Candollea 9: 147-476, 1942, places Planchonella Pierre under Pouteria Aubl., 1775.

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VERBENACEAE:
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§Stylodon Raf., 1825=Verbena Linn.

#### LABIATAE:

!Blephilia Raf. 1819.

†Hypogon Raf., 1817=Micheliella Briq., 1897. §Melosmon Raf., 1837=Teucrium Linn.

Piloblephis Raf., 1838=§Pycnothymus Small, Satureia Linn.

†Vleckia Raf., 1808=Lophanthus Benth., 1829=Agastache (Gronov.) O. Kuntz, 1891.

#### NOLANACEAE:

†Periloba Raf., 1838=Gubleria Gaudich., 1842-46; Sorema Lindl., 1844; see Johnston, Contr. Gray Herb. 85: 104-

Deprea Raf., 1828=\*Athenaea Sendtn. 1846. Diplukion Raf., 1838=\*Iochroma Benth., 1845. Kukolis Raf., 1838=\*Hebecladus Miers, 1845. Oronocoa Raf., 1838=\*Athenaea Sendtn., 1846. \*Quincula Raf., 1832=Physalis Linn. Ulticona Raf., 1838=\*Hebecladus Miers, 1845. Valteta Raf., 1838=\*Iochroma Benth., 1845.

#### SCROPHULARIACEAE:

!Agalinis Raf. 1837.

Aureolaria Raf., 1837.

†Dasistoma Raf., 1819=Brachygyne (Benth.) Small, 1903 (Seymeria Pursh., sect. Brachygyne Benth., 1846).

Etornotus Raf., 1840=§Hydrotrida Small, 1913=Bacopa Aubl. 1775

Macuillamia Raf., 1840.

†Tomanthera Raf., 1837=Otophylla Benth., 1846.

†Cupulissa Raf., 1837=Anemopaegma Mart., 1845. †Kigelkeia Raf., 1838=Kigelia DC., 1845. †Lobonis Raf., 1838=Pithecoctenium Mart., 1840.
†Platolaria Raf., 1838=Pithecoctenium Mart., 1845.
†Pongelia Raf., 1838=Dolichandrone Fenzl, 1862.
†Potamoxylon Raf., 1838=Couralia Splitg., 184
Pichon, Bull. Soc. Bot. Fr. 92: 228, 1945.

†Sererea Raf., 1838=Pithecoctenium Mart., 1840.

#### OROBANCHACEAE:

Leptamium Raf., 1818=\*Epifagus Nutt., 1818. §Thalesia Raf., 1818=Aphyllon Torr. & Gray, 1848=Orobanche Linn.

#### LENTIBULARIACEAE:

Cosmisa Raf., 1838=\*Polypompholax Lehm., 1844. §Stomosia Raf., 1838=Utricularia Linn. §Vesiculina Raf., 1838=Utricularia Linn.

#### ACANTHACEAE:

Calesias Raf., 1838=\*Anisotis Nees, 1847. †Crateola Raf., 1838=Anthacanthus Nees, 1847. Ethesia Raf., 1838=\*Jacobinia Moric., 1846. Flavicoma Raf., 1838=\*Schaueria Nees, 1838. †Idanthisa Raf., 1840=Anisacanthus Nees, 1842. †Oplonia Raf., 1838=Anthacanthus Nees, 1847. †Stethoma Raf., 1838=Psacadocalymma Bremek., 1948. †Upudalia Raf., 1838=Daedalacanthus T. Anders., 1864.

†Bubalina Raf., 1820=Burchellia R. Br., 1820. Cormigonus Raf., 1820=\*Bikkia Reinw., 1826.

#### CAPRIFOLIACEAE:

§Distigia Raf., 1838=Lonicera Linn. §Phenianthus Raf., 1820=Lonicera Linn.

#### CUCURBITACEAE:

Arkezostis Raf., "1836" [1838] = \*Cayaponia Silva Manso, 1836 (conservation was not necessary). Micrampelis Raf., 1838=\*Echinocystis Torr. & Gray, 1840.

#### CAMPANULACEAE:

Bolelia Raf., 1832=Wittia Kunth, 1850=\*Downingia Torr.

Gynampsis Raf., 1833=Wittia Kunth, 1850=\*Downingia Torr., 1857. §Triodanis Raf., 1838=Specularia A.DC., 1830.

!Agoseris Raf., 1817, 1819.

Anactis Raf., 1836=\$Brintonia Greene, 1895=Aster Linn. Chondrophora Raf., 1838=\*Bigelowia DC., 1836, non Sm.,

Diplogon Raf., 1817=\*Chrysopsis (Nutt.) Ell., 1824.

!Erechtites Raf., 1817

§Mesadenia Raf., 1832=Senecio Linn.

!Othake Raf., 1838. Ptilepida Raf., 1818=§Tetraneuris Greene, 1898=Actinea

Juss., 1803.

Ptiloria Raf., 1832=\*Stephanomeria Nutt., 1841.
!Ratibida Raf., 1817, 1818 (Lepachys Raf., 1819).
!Serinia Raf., 1817 (Apogon Ell., 1824).
Sitilias Raf., 1837=\*Pyrrhopappus DC., 1838.
Steiractis Raf., 1837=\*Laya [Layia] Hook & Arn., 1833,

1838. §Synosma Raf., 1832=Cacalia Linn.

### COMMENTS ON THE LIST OF RAFINESQUE GENERIC NAMES

How disastrous Rafinesque's erratic work was to his future reputation is indicated by the mere fact that although he originated about 2700 generic names in the plant kingdom, only about 30, an infinitesimally small percentage, are universally accepted and used by all botanists. This low score may be somewhat increased by adding the somewhat more than 70 cases that have been demonstrated above to have clear priority over later names of other authors now currently used to indicate this or that group of plants. It is a foregone conclusion that while some of these early Rafinesque names will be accepted, most of them will eventually be included in the official list of nomina generica rejicienda. In that list the unflattering total of 90 of Rafinesque's names have already found their places. Rafinesque's position would be somewhat further improved were all botanists willing to accept the findings of those modern representatives of the Britton-Rose-Rydberg-Small school who, in subdividing large genera, have reinstated approximately 80 of Rafinesque's generic names.

However, it is felt that it is a forlorn hope that most contemporaneous and future systematic botanists will accept the philosophy of those who argue that the large and more or less polymorphous genera must be divided into few to many smaller ones. They will argue that the inter-relationships of groups can be indicated just as clearly by retaining subgenera and sections, and that it is not necessary to raise these minor groups to generic status or to make the inordinate number of transfers of specific names the latter course requires. On the basis of fairness, however, this modern school of "splitters" was eminently correct in accepting Rafinesque names for the entities that both he and they recognized and for which the former originated the generic name. Too often in the history of botany those who would recognize minor categories as genera have selected names de novo regardless of those which others may have proposed at earlier dates. To a large degree this failure on their part resulted in the rather extraordinary number of about 160 cases where, on the basis of strict priority, Rafinesque's generic names should have been accepted.

That about 90 of Rafinesque's generic names have been officially discarded in spite of their having priority is largely a reflection on Rafinesque and the utterly careless type of work he sponsored. Judged by any reasonable standards anyone who will critically examine the record could only conclude that in his highly erratic work, Rafinesque was utterly irresponsible. No matter if his conclusions were correct, as they were on occasion, he failed to make himself clear, failed in general to provide even reasonably good descriptions, failed too often even to mention the really striking differential characters by which this or that entity could safely be recognized, failed in his feeble attempts at documentation, and failed in his associations with contemporaneous botanists.

Adanson actually stands at the head of the list of those who have proposed generic names that have been included in the official list of nomina generica rejicienda with a total of about 115 names, but it should be remembered that Adanson was arguing essentially for a monomial rather than a binomial system of nomenclature. Rafinesque is second on the list with a fair chance of ultimately replacing Adanson in the leading position, the total of officially discarded Rafinesque names being now about 90. Among all botanists of all time these two have no competitors, for Necker is a poor third with about 35 discarded ones, and few others exceed 15 names. To indicate the general fairness of the groups who made up the lists of rejected names even Linnaeus who originated the binomial system in 1753 loses about 15 generic names by their being eliminated in favor of those proposed at later dates by other authors. Even those who figuratively weep at the treatment accorded to Rafinesque in eliminating about 90 of his generic names that admittedly have clear priority, do not realize that some of the despised Rafinesque names have been officially conserved against those of earlier authors, such as Adlumia Raf. (1808) and Nemopanthus Raf. (1817, 1819) with Bicucullia Borkh. (1797), and Ilicoides Dum. Cours. (1802) discarded; and this with the original publication of Adlumia consisting only of: "Adlumia, (cirrhosa) which is the Fumaria fungosa Aiton or F. recta of Mich."

We may admit that Rafinesque was well in advance of most of his contemporaries in many of his suggested generic segregates. But credit accruing to him for his manifestly logical contributions in this field is more than counterbalanced by the enormous number of illogical proposals. Granting strict priority, regardless of the official list of conserved names, and including the minor segregates that a few individuals have accepted, the score is only about 240 and not more than about 30 universally accepted; and under the rules of botanical nomenclature of the above total 90 are officially eliminated from consideration. Further, in this work it has been demonstrated that in about 70 additional cases which are included in the above total, Rafinesque's generic names have clear priority over those proposed by other authors for the same groups. Acceptance or Rejection of Rafinesque Names

If other botanists who are familiar with a special group or with a special flora wish to accept a Rafinesque name, when it can definitely be shown what the limit of the Rafinesque entity is, and displace a later published name that is in current use, this is their privilege. To assist them this text has been arranged, not in a single sequence, as in Index Kewensis and Index Filicum, but alphabetically by genera under natural groups in the family sequence of the Engler and Prantl system. Thus it is that the specialist devoting his time to an intensive study of a natural group (family) will find in one place all or most of the pertinent Rafinesque references to that group. Safely to place most of the Rafinesque genera is relatively simple, for generally that strange individual clearly indicated his type-species, and this at a time when such a procedure was distinctly unusual. To place many of his inadequately described species where the descriptions were based on actual specimens is an almost hopeless task.

I believe, and I am sure that most botanists will agree with me, that where economic or important horticultural species are concerned, and in those cases where a very large number of specific names are involved, the principle of conservation of the currently used generic name should be followed and the earlier Rafinesque name should be discarded; but where the genus is a small and unimportant one, of interest only to taxonomists, the principle of priority should prevail and the Rafinesque name should be accepted, as has recently been done by Stearn in 1943 in displacing Beauverdia Herter (1941) by Ipheion Raf. (1837), and by C. G. Foster in 1946 in dropping Symphyostemon Miers (1841) in favor of Phaiophleps Raf. (1838), to say nothing of the Rafinesque versus J. K. Small cases discussed on page 25. I hold no brief for careless bibliographic work, and under no circumstances, if I elected to follow certain recently proposed generic segregations, would I accept a Smallian generic name proposed as new in 1933 when it can definitely be shown that the same entity was characterized and assigned a valid name by Rafinesque a century or more earlier. Any other course merely puts a premium on carelessness. There is, thus, a reason for intensive bibliographic research on the part of those who will propose new generic names by subdividing large and cumbersome groups. Merely because a proposed generic name has been sunk in synonymy is no reason for accepting such reductions as always correct; and if, as is the case with Rafinesque, a number of his proposed new generic names were never listed, this is all the more reason why the list should be completed and published.

# GENERALLY ACCEPTED RAFINESQUE GENERIC NAMES

Rafinesque's contemporaries seriously objected to his erratic work, considered it valueless, and further that it could and should be ignored. Yet universal acceptance has been accorded to many of his genera including such well known ones as Distichlis, Sitanion, Peltandra, Clintonia, Hexalectris, Isotria, Ofaiston,

Enemion, Adlumia, Polanisia, Cladrastis, Nemopanthus, Pachistima, Cymopterus, Lomatium, Musineon, Oreoxis, Osmorhiza, Oxypolis, Ptilimnium, Spermolepis, Blephilia, Agalinis, Aureolaria, Pagesia, Agoseris, Erechtites, Othake, Ratibida and Serinia. This is an impressive list even if we are forced to admit that only a very small percentage of Rafinesque's total of 2700 new generic names is included.

#### POPULAR WRITER'S IDEAS

One supposedly responsible individual in recent years (see p. 51) has made the bald claim that: "If the rules of priority were strictly and justly applied, Rafinesque would be found to have antedated a large part of the work of Say amongst shells, of his enemy Harlan amongst mammals, in botany of Gray and De Candolle." Let us see how this works out in botany for the genera alone. Of the scores of genera proposed by the two eminent botanists indicated, on the basis of strict priority, only about ten would be discarded in favor of those Rafinesque proposed. The record as to species, as judged by what contemporary and later botanists have accepted, gives the sympathizers of Rafinesque little cause for congratulation, for here again surprisingly few of the more recent names can be replaced by earlier Rafinesque ones. The binomial field is not complicated by lists of conserved and rejected names. Among the 6700 binomials proposed by Rafinesque he would lose to De Candolle and Gray combined only about a half score of names, as far as competent botanists have been able to interpret approximately what Rafinesque intended by his remarkably incomplete and, it is feared, often inaccurate technical descriptions. It seems strange even to be called upon to mention in terms of comparison such an utterly irresponsible super-erratic individual as Rafinesque and such highly critical, careful workers as De Candolle and Asa Gray. The call here was due to utterly unjust and highly erroneous conclusions of a popular writer who should have known better. Perhaps it were better that the strange Peattie statements were not even mentioned. However, though he manifestly was not writing fiction, he succeeded in this case in distorting the truth (see p. 50).

#### RAFINESQUE VERSUS ASA GRAY

On the basis of strict priority Gray would lose to Rafinesque the following generic names: Stenanthium (A. Gray, ut subgen. 1837) Kunth, 1843=Anepsa Raf. 1837; Amianthium A. Gray, 1848=Chrosperma Raf. 1837; Helionopsis A. Gray, 1859=Hexonix Raf., 1837 and Kozola Raf., 1837; Darbya A. Gray, 1846=Nestronia Raf., 1838; Siphonychia Torr. & Gray, 1838=Amorgyne Raf., 1838 and Bunilis Raf., 1838; Iodanthus Torr. & Gray, 1838=Oclorosis Raf., 1834; Suksdorfia A. Gray, 1880=Hemieva Raf., 1837; Tolmiea Torr. & Gray, 1840=Leptaxis Raf., 1837; Astronidium A. Gray, 1854=Lomanodia Raf., 1838; Asclepiadora A.

Gray, 1876=Anthanotis Raf., 1817 (=Asclepias Linn.); Aphyllon Torr. & Gray, 1848=Thalesia Raf., 1818; and Echinocystis Torr. & Gray, 1840=Micrampeles Raf., 1839. In all only about eleven genera are involved, as opposed to nearly thirty most sketchily "published" and even more sketchily described ones that Gray and De Candolle for the most part accepted: and incidentally they at times accepted other Rafinesque generic names which later botanists, for valid reasons, abandoned.

Grav frankly admitted in 1841 that: "Many of Rafinesque's names should have been adopted; some as a matter of courtesy, and others in accordance with strict rule." In justice to Rafinesque, it is regrettable that the desirability of critically considering what Rafinesque proposed was not realized by botanists here or elsewhere at an early date. Had this been done we probably would not now have to consider the unflattering total of 90 of Rafinesque's generic names that have been officially rejected in favor of later ones proposed by other authors. Undoubtedly the majority of the many additional Rafinesque genera, discussed above as having priority, will ultimately be rejected in order to obviate the necessity of publishing a great many new combinations under the rule of strict priority, and thus further upsetting the already too complicated nomenclature of plant species.

#### RAFINESQUE VERSUS SMALL

If on the basis of no knowledge of the significance of his claims a popular writer takes such eminent botanists as Asa Gray and De Candolle to task, what should one's reaction be to the careless bibliographic work one notes within the present century on the part of certain more recent botanists? Consider only one case, that of the late John K. Small, who believed in narrow generic limits. When he concluded that certain groups should be subdivided it became necessary to select new generic names for his new groups. He actually did reinstate various genera that had been named and characterized by Rafinesque and other earlier authors which had been reduced to synonymy in the interim. But he overlooked an unusually large number of validly published Rafinesque generic names that he should have detected. Thus Cuthbertia Small and Tradescantella Small, 1903=Phyodina Raf., 1837; Brachygyne Small, 1903=Dasistoma Raf., 1819; Delopyrum Small, 1913=Phyllepidum, Raf., 1808; Neocleome Small, 1933 = Tarenaya Raf., 1813; Zygophyllidium Small, 1903=Zalitea Raf., 1838; Geobalanus Small, 1913 = Spondolobus Raf., 1838; Amarolea Small, 1933 = Cartrema Raf., 1838; Pycnothamnus Small, 1903=Piloblephis Raf., 1838; and were it really desirable to segregate genera from Acer, as Small has done, Clinotrox Raf. and Sacharodendron Raf., both published by Rafinesque in 1836 as subgenera of Acer, equal Rafacer and Argentacer Small 1933, respectively. Yet here is an author who believed in absolute priority in publication, not even recognizing the official list of conserved generic names. One judges that in place of censuring the older authors, who frankly believed that Rafinesque's propositions were unworthy of acceptance and that they could and should be ignored, some more modern authors might be mildly blamed for their inconsistencies and bibliographic oversights. If anyone elects to follow Small in these fine generic segregates he would scarcely be justified in accepting a Smallian generic name, published within the present century, where Rafinesque has antedated him.

## A SIMPLE BUT IMPRACTICABLE SOLUTION

It is admitted that the simplest solution to the Rafinesque problem would be to outlaw all Rafinesque botanical publications by appropriate action of some International Botanical Congress. However, in objection to this it should be noted that from Rafinesque's first botanical paper in 1806 to his last in 1840, technical names were included which have been universally accepted by all botanists. The evil of eliminating such widely used names as Distichlis, Peltandra, Clintonia, Adlumia, Polanisia, Cladrastis, Nemopanthus, Cymopterus, Lomatium, Musineon, Osmorhiza, Oxypolis, Spermolepis, Blephilia Agoseris, Erechtites and other well-known names, all originated by Rafinesque, would more than offset the temporary inconvenience of replacing a currently used generic name, such as Dolichandrone Fenzl (1862) by Pongelia Raf. (1838), or others as indicated on pages 20-23. Thus it seems to be a logical course to follow to continue to select the few sound grains from the overwhelming amount of chaff in the Rafinesque technical botanical papers, even if, occasionally, some more or less universally used generic or specific name might fall before those proposed by Rafinesque at earlier dates. In fairness to Rafinesque, no matter how vexed one may be at the inadequancy of his published work, his names, when valid, should be accepted unless eliminated by proper authority through their inclusion in the official list of rejected generic names.

#### COMMENTS ON THE LIST OF CONSERVED NAMES

Anyone who has a working knowledge of the official list of conserved generic names will realize some of its faults. It is, of course, not complete, and unquestionably many additions should be made to it. This study alone, in which it has been shown that there are no less than about 70 cases, previously overlooked, where Rafinesque's generic names have clear priority over currently accepted ones, indicates the need of making judicious additions to the list of nomina generica conservanda; until this is done any botanist at any time is free to accept this or that of the earlier Rafinesque generic names, if he cares to do so, and transfer to them the names of the proposed species under the displaced generic names.

Thus Montrichardia Crueg., 1854=Pleuropsa Raf., 1838; Bifrenaria Lindl., 1843=Adipe Raf., 1837; Lycaste Lindl., 1843=Deppia Raf., 1838; Iphigenia Kunth, 1843=Aphoma Raf., 1837; Beauverdia Herter, 1941=

Ipheion Raf., 1837; Chionographis Maxim., 1867= Siraitos Raf., 1838; Heloniopsis A. Gray, 1859= Hexonix Raf., 1837 and Kozola Raf., 1837; Pasania Oerst., 1866=Arcaula Raf., 1838 and Balanaux Raf., 1838; Castanopsis (G. Don, 1835, sect.) Spach, 1842= Balanoplis Raf., 1838; Phthirusa Mart., 1830=Hemitria Raf., 1820; Struthanthus Mart., 1830=Steirotis Raf., 1820; Neolitsea (Benth., sect. 1880) Merr., 1905= Bryantea Raf., 1838; Xylia Benth., 1842=Escleronia Raf., 1838; Lesquerella S. Wats., 1888=Discovium Raf., 1819; Iodanthus Torr. & Gray, 1838=Oclorosis Raf., 1834; Siberaea Maxim., 1878=Eleiosina Raf., 1838; Euscaphis Sieb. & Zucc., 1840=Hebokia Raf., 1836; Dissotis Benth., 1849=Hedusa Raf., 1838 and Kadalia Raf., 1838; Astronidium A. Gray, 1854= Lomanodia Raf., 1838 (Naudiniella Krasser, 1893); Austrodaucus Drude, 1898=Agemoron Raf., 1840; Dipholis DC., 1844=Spondogona Raf., 1838; Planchonella Pierre, 1890=Xantolis Raf., 1838; Agastache (Clayt., 1762) O. Kuntze, 1891=Vleckia Raf., 1808; Kigelia DC., 1845=Kigelkia Raf., 1838; Pithecoctenium Mart., 1840=Sererea Raf., 1838 and Lobonis Raf., 1838; Dolichandrone Fenzl, 1862=Pongelia Raf., 1838; Anemopaegma Mart., 1845 = Cupulissa Raf., 1837 and Platolaria Raf., 1838; Calonyction Choisy, 1833= Bonanox Raf., 1821; Pharbitis Choisy, 1833=Diatremis Raf., 1821; Jacobinia Moric., 1846=Ethesia Raf., 1838; Daedalacanthus T. Anders., 1864=Upudalia Raf., 1838; Anacanthus Nees, 1847 = Crateola Raf., 1838; Anisacanthus Nees, 1847=Oplonia Raf., 1838 and *Idanthisa* Raf., 1840; and *Echinocystis* Torr. & Gray, 1840=Micrampeles Raf., 1838.

The above is only a partial list of the currently accepted names that could, on the basis of strict priority, be replaced by Rafinesque's earlier ones. For a more complete list see the tabulation on p. 20. The above list was selected arbitrarily from various families extending from the Araceae to the Cucurbitaceae merely to indicate the desirability of definite action. Because of the horticultural interest of certain genera (Montrichardia, Lycaste, Kigelia, Jacobinia), because of the economic interest of others (Xylia), or because of the very large number of species involved (Pasania, Castanopsis, Neolitsea, Astronidium, Planchonella, Anemopaegma) it is believed that at least these currently used names should be conserved by appropriate action. In general, in reference to the larger number of cases involved, one can see little or no reason for not accepting the Rafinesque names. One hesitates to recommend that the Rafinesque names be discarded in all cases. specialist in this or that group should be the best equipped individual to make the necessary recommendations.

While it is believed that the list of conserved names should be increased one sometimes regrets that certain names have been included in preference to older ones. A striking case is *Paphiopedilum* Pfitz., 1886 for which Rafinesque published three names in 1838, *Cordula, Menophora*, and *Stimegas*; and it so happened that in 1912 Rolfe actually accepted *Cordula* and transferred

to it fifty accepted names in Paphiopedilum. I personally believe that in this case Cordula Raf. should have been retained. The reason was, of course, that Paphiopedilum included a great many showy species cultivated by orchid fanciers; yet these species are still known to all orchid enthusiasts as representatives of Cypripedium, are familiarly spoken of as "cyps" and with orchid growers they will always be known under the name Cypripedium regardless of what generic name the botanists select. I submit that Cordula or Menophora or Stimegas are all names preferable to the sesquipedalian Paphiopedilum.

Columella Lour. (1790) is older than Columellia Ruiz & Pavon (1794), yet because the latter typifies the Columelliaceae there was every reason why Columella Lour. should have been rejected. Against it Cayratia Juss. (1823) was conserved, yet the pedigree of its type-species is distinctly clouded; see Merrill, Trans. Am. Philos. Soc. II. 24(2): 255. 1935, where it is shown that available also were Lagenula Lour. (1790), Pedastis Raf. (1838), and Causonia Raf. (1838). In this case would not a better choice have been Lagenula Lour.? Note Cananga Hook. f. & Thoms., 1855, non Aubl., 1775, actually conserved against Canangium Baill., 1878; and now Cananga Raf., 1815, appears; yet, were the latter validly published, which it is not, Rafinesque's priority would avail him naught.

Merely because personal opinion sometimes dictates a preferential choice is no reason for not accepting the authorized list as published, even though one might suggest improvements; yet doubtless there will always be individualists who will follow no code of nomenclature in its entirety. It is wholly unlikely that any future transgressor can possibly equal Rafinesque's record in nonconformity.

#### SUBGENERA AND SECTIONS

Rafinesque proposed an extraordinary number of subgenera, but these, like most of his genera and species, are most inadequately characterized. Yet in the majority of cases it is possible to place them definitely, for he generally indicated their types or listed illustrative species, making it a simple matter to typify the subgenus or section. Because of his lack of clarity it is sometimes difficult or perhaps at times impossible to decide whether the author intended the defined and named group to represent a genus or a subgenus, as he used the expression "genus or subgenus" and left the matter of interpretation to his successors. There is thus an opportunity for taxonomic disagreements as illustrated by the Rickett-Farwell 27 discussions as to

<sup>27</sup> Rickett, W. H. The Names of Cornus. Torreya 42: 11-14. 1942.

----- Cornus Again. Op. cit. 131.

Farwell, O. A. Cornus, a Reply. Op. cit. 130.

——— Eukrainia and Cynoxylon not Genera of Rafinesque. Rhodora 34: 29-30. 1932.

Hara, H. The Nomenclature of the Flowering Dogwood and its Allies. Jour. Arnold Arb. 29: 111-115. 1948.

whether certain entities proposed by Rafinesque are genera or subgenera. One cannot always determine with certainty what category Rafinesque intended by this or that name, for sometimes he was by no means clear. As Rickett has noted one cannot interpret by typography because of Rafinesque's inconsistencies. What can one do in such a case as Distimex, Onatex, Lentex, and Tristimex, Good Book 83, 1840, where he says that in 1830 he had divided Carex into four subgenera "which may be deemed sub-families now" and then proceeds very briefly to characterize them. It was by no means unusual for him to propose a new name and indicate it as representing a "new genus or subgenus," sometimes proceeding to publish binomials under it, sometimes not.

The total number of subgenera and sections proposed and more or less definitely characterized by Rafinesque is about 335. It is rather interesting to note that in a number of cases the same entities have been named and described by later authors as new genera without regard to Rafinesque's earlier proposals. Examples are Clinotrox Raf. (1836) as a subgenus of Acer Linn.=Rufacer Small (1933); Sacharodendron Raf. (1836) and Eriocarpum Raf. (1836), as subgenera of Acer Linn.=Argentacer Small (1933); and Spondolobus Raf. (1838), as a subgenus of Chrysobalanus Linn.=Geobalanus Small (1913).

Occasionally what Rafinesque characterized and named as a subgenus was inadvertently entered in Index Kewensis as a genus, and the listed species were actually transferred in the latter work. In a few cases Rafinesque himself, in naming and describing a certain group definitely as a subgenus actually published new binomials under what he had designated as a subgeneric name. One can only consider the binomials involved as properly published regardless of Rafinesque's statement as to the category of the group involved.

#### SPECIES

Rafinesque proposed an inordinate number of new species, his published work literally touching all parts of the world, Europe, Africa, Asia, Australia, North and South America, and various groups of islands in both the Old and the New Worlds. Very many of these were based on actual specimens collected by himself, received in exchange, or sent to him for study by an extraordinarily large number of correspondents. In addition to the species named and described by him de novo on the basis of actual specimens, he also published a very large number of binomials by transfer from the genera in which they were originally described, or in the form of new names, when, for one reason or another, Rafinesque considered the original name to be inappropriate. The grand total of his new binomials approximates 6700.

Apparently he favored certain groups. Thus in the genus *Clintonia* that he originally named and described, where, in the area covered by him, modern botanists recognize but two species, and these not sharply sepa-

rated, Rafinesque recognized 21 distinct species and 17 varieties. In Vitis, where modern authors recognize few distinct species in eastern North America, for this region Rafinesque recognized about 65 species and 75 varieties. In Citrus his record is about 15 species and 16 varieties where most recent authors recognize perhaps 5 species—yet it should be noted that within the past few decades Tanaka, Wester, and others who have proposed a great many new species, actually cultigens, analogous to those Rafinesque named a hundred years ago, made no effort to identify the status of Rafinesque's entities. In Gossypium, 29 species and 13 varieties, all or most of them cultigens, were most inadequately described; few of these have been even considered by any modern specialist who has attempted to make order out of chaos in this difficult group. There are a great many

It is with the species rather than with the genera that Rafinesque proposed that most difficulties are encountered in making identifications. The new genera were mostly based on previously described species of other authors and if the identity of the type-species can be determined, then the application of the generic name follows. Most of Rafinesque's new species were based on actual specimens, these often poorly prepared, and it is admitted that in a high percentage of cases the descriptive data are so utterly inadequate that absolute identification becomes doubtful in a majority of the cases. Occasionally the characterizations were excellent, leaving nothing in doubt, but this was only occasionally. In the vast majority of cases one may frankly admit that suggested reductions are merely guesses. In general it is probably best to let sleeping dogs lie, accepting a Rafinesque name only when the identity of the species can be demonstrated without a shadow of doubt.

#### VARIETIES

A large number of varieties were indicated by Rafinesque as new, very few of which have ever been considered by his successors. Believing as he did that species were constantly being formed in nature, and noting minor variants from an assumed typical form, it was only logical that he should assume that many of these intermediate or slightly aberrant forms represented varieties. His attitude is rather clearly expressed in the following quotation from his *Sylva Telluriana* 155, 1838:

"As to the varieties, most of our species are such, being natural deviation by seedlings assuming peculiar forms in the woods and wilds as it is done constantly in our fields and gardens by the cultivated trees and plants. Those best known afford most of our noticed varieties or specific deviations; but it is only our ignorance or neglect that prevents us from ascertaining in others all consimilar varieties."

In attempting to establish varieties (and incidentally he published the names of approximately 900 new ones) he was just as unsuccessful as he was in attempting to establish new genera and new species, and for the same general reasons—poor judgment, and utterly inadequate descriptive data. As a matter of fact in a vast majority of the cases he published no descriptions for his new varieties, apparently believing that all that was necessary was for him to select a descriptive varietal name such as longifolia, pumila, glauca, lucida, parviflora, etc. With the destruction of his herbarium there is now no way by which these fugitive names can be placed. They are thus scarcely worthy of being listed.

Even when he did provide varietal descriptions these were always short or very short, often consisting of only two or three words. Because in all standard indices varieties were not listed, there was no practical method by which Rafinesque's successors could determine what he had proposed in this field. Among the very few Rafinesque varieties that later authors have considered it is noted that Sassafras triloba Raf. var. mollis Raf. is now S. albidum (Nutt.) Nees. var. molle (Raf.) Fernald, and that Rehder recognizes Cephalanthus occidentalis Linn. var. pubescens Raf. Scarcely more have been reduced to synonymy, some of the very few examples being Liriodendron tulipifera Linn. var. alba acutifolia Raf. and var. flava obtusiloba Raf., and Diospyros virginiana Linn. var. concolor Raf., var. macrocarpa Raf., and var. microcarpa Raf.

Even if Rafinesque's very numerous new varieties had been listed at an early date, it is very doubtful if many more than the few referred to above would have continued in botanical literature either as valid varieties or as synonyms. The exact status of nearly all of his proposed varieties is actually much more indefinite than is the corresponding status of very many of his species which were based on actual specimens. What a catastrophe was the treatment accorded by Elias Durand to Rafinesque's herbarium! See p. 36.

There is no easy method of determining whether or not Rafinesque was the original author of a certain varietal name, for there is no even reasonably complete list of the proposed varieties and their places of original publication as there is for genera and species. To be certain one would have to check a large part of the botanical literature published previously to the third and fourth decades of the nineteenth century. In preparing this index it has been assumed that wherever Rafinesque lists a variety, he is the author of the varietal name.

#### THE TYPES OF NEW NAMES

In examining Rafinesque's treatment of both genera and species one immediately realizes that two categories are involved. The first includes those entities that he described as new on the basis of actual specimens before him; the second those based on purely bibliographic references with no authentically named specimens available to him for study and comparison.

Because of the erratic nature of Rafinesque's descriptive work one soon realizes that his new genera and his new species in the first category are much more difficult to place than are those in the second one. Had Rafinesque's herbarium been preserved the task of interpreting many of his assumed new forms would

have been greatly simplified; as it is we have to depend on his usually short, always inadequate, and too often generalized descriptions, and we have no means of checking the accuracy of his interpretation of morphological characters in the absence of authentically named specimens. One may often determine the status of a Rafinesque species by the process of elimination. In brief this may be characterized as: What plant actually growing in or near the locality cited by Rafinesque actually conforms to his description?

When one has acquired an intensive knowledge of a certain flora, based on ample field work, it is surprising how often an enigma in the form of an inadequately described species can be solved where the type in question came from some definite locality within the region the modern botanist is familiar with. If, as Rafinesque does, on occasion, cite an exact locality such as the Falls of the Potomac River, or Peaks of Otter, as the place where he secured specimens which he later made the type of a new species, then if one finds the description to be inadequate one should consider what plants actually grow at the indicated place and which one agrees with the short description. Thus Polypodium erosum Raf. is very inadequately described, but the type is indicated as growing "on rocks in the Knob hills of Kentucky"—the only fern that occurs in that habitat and locality that conforms to Rafinesque's description is Cystopteris fragilis (Linn.) Bernh., and this we may safely accept as properly reduced to the latter.

A somewhat different case is that represented by Phyllepidum Raf., which has long been placed in the Amaranthaceae as a genus valde dubium. In his treatment of the Amaranthaceae, North American Flora 21: 169. 1917, Standley left it unaccounted for, stating that "the description and illustration (Raf. Specchio 1: pl. 4) do not apply to any known North American plant of the family," which is true. Rafinesque says: "Ritrovai questa pianta vicino Baltimore, provincia di Maryland, America settentrionale; nasce in luoghi arenosi." Now the vicinity of Baltimore is not exactly unknown botanical territory. In spite of the fact that the type is not extant, an attentive consideration of the description and the reasonably good illustration clearly shows that Phyllepidum Raf., instead of belonging in the Amaranthaceae, actually represents Polygonella Michx. (1803) of the Polygonaceae and thus another problem of identity is solved. Rafinesque had slightly misinterpreted certain morphological details, thus failing to realize that this supposedly amaranthaceous plant actually belonged in another very natural group and incidentally one that he favored in proposing generic segregates.

In the second category, where a new Rafinesque name was based wholly on a previously described or illustrated species of some other author, all we have to do to understand the application of the Rafinesque name is to determine the status of the originally described form. Here fortunately Rafinesque's contemporaries and predecessors were, in general, much more exact than he was. Thus it is that the vast majority of the new

Rafinesque genera and species that were based on the work of his predecessors can definitely be placed, no matter from what part of the world the original form was described. This is true even when Rafinesque's descriptive data are for the most part conspicuous by their absence. The original description of the basic species may fortunately be ample, or the actual type is extant, or modern amplified descriptions exist. Beautiful examples of the cryptic publication of new Rafinesque names, all of which are understandable because of the synonyms cited, are such new genera as Adlumia, Chryza, Jacksonia, Macrotrys and many others published in 1808 as: "Adlumina (cirrhosa), which is the fumaria fungosa Aiton, or F. recta of Mich."; "Chryza (borealis), Helleborus trifolius Linn."; "Jacksonia (trifoliata), Cleome dodecandra, Linn."; "Macrotrys (acteoides), Actaea racemosa, Linn." With such a cryptic publication as Jacksonia Raf., cited above, which in my opinion is invalid, because of the utter absence of any description, and Rafinesque never having considered the name elsewhere, we note that both Greene and Rydberg have replaced *Polanisia* Raf. (1818, 1819) by Jacksonia Raf. (1808) which, were others to follow them, would render necessary a new name for the Australian leguminous genus Jacksonia R. Br. (1810).

Even more cryptic is Rafinesque's original and only use of the name Washingtonia Raf. In discussing Myrrhis claytoni Michx. (1803) he says, Am. Monthly Mag. Crit. Rev. 2: 176. 1818: "but Myrrhis happens to be erroneous also, by being similar to Amyris, a previous genus, whence several names have been proposed for it, Washingtonia, Osmorhiza, Gonatherus [all here first proposed!]; but these are not yet published; the second is perhaps the best." Osmorhiza was the name Rafinesque accepted and later characterized, for he never elsewhere reconsidered Washingtonia. Yet Coulter and Rose who initiated the chain of nomenclatural upsets, were followed by Rose, Heller, Britton, Rydberg, and Koso-Poljansky, who all accepted Washingtonia Raf. as validly published. They transferred about fifteen specific names from other genera to Washingtonia. This was not the end, for Washingtonia H. Wendland (1879), a genus of palms, was erroneously considered to be invalid and renamed Neowashingtonia by Sudworth. Manifestly Washingtonia Winslow (1854), proposed as a generic name for what is now known as Sequoiadendron Buchholz, has no standing, as it was merely a nomen provisorium, a forbidden category. Washingtonia Raf. should never have been accepted. It was not only unaccompanied by a description, although not exactly a nomen nudum, as the cited binomial supplies the clue to its identity, but it is furthermore definitely a nomen alternativum, another forbidden category; and incidentally Washingtonia, Osmorhiza, and Gonatherus are, as originally used by Rafinesque in 1818, all nomina provisoria. One suspects that the original searcher who located the "publication" of Washingtonia (it was not admitted to Index Kewensis until its second Supplement appeared in 1904) was an ardent disciple of the rule of strict priority who was never checked by those who

followed him and accepted his conclusions. In this particular field, no matter what author is involved, too much cannot be safely accepted on the basis of faith alone; it is always best to check the original publications of all names.

The slightest excuse, or apparently in some cases no excuse, was needed by Rafinesque when the matter of proposing new names was involved. One of the strangest cases is that involved in the following quotation from the Sylva Telluriana 85. 1838:

"500 Capupica Raf. probably a distinct G. type C. odorata Raf. Piper carpupija RP tree of Peru with fragrant leaves—Piper methysticum and Churumaya are also probably types of other Genera? to be called Methysticum esculentum Raf. and Churumaya arborea Raf. Is not Piper betel another? to be called Betela mastica Raf."

Rafinesque's sketchy treatment is a beautiful case of putting the matter up to the next botanist who has to consider generic limits in the Piperaceae. He managed to "publish" in this short paragraph the new generic names (each with one new binomial) Carpupica, Methysticum, Churumaya, and Betela, all as "probable" or at least potential new genera, but with not the slightest attempt to characterize these suggested new groups. Yet from the binomials cited the identity of each of these four new genera is evident even with the entire absence of descriptive data. I dissent from Moore's conclusion, Occ. Pap. Bishop Mus. 10 (19): 1-5. 1934, in his discussion of the botanical name of the Polynesian ava, that: "One can only say that the Rafinesque name [Methysticum esculentum Raf.] is a nomen nudum and that its application is very uncertain if at all intelligible." Clearly what Rafinesque had in mind was Piper methysticum Forst. f. (or possibly P. methysticum Linn. f.). In all of Rafinesque's voluminous publications there are no references to Roxburgh's Flora Indica, this being evidence that he had no knowledge of that work; hence the different Piper methysticum Roxb. (1820), non Forst. f. (1786), nec Linn. f. (1781), has no bearing on the case. As another example of most casual publication of new generic names is the following passage from the Flora Telluriana 4: 49. 1836 [1838] sub Acroanthes Raf.

"The uniflore Disa like D. grandiflora are the type of the Genus, D. cornuta and other spiked sp. must form my G. Gamaria—Eria and Stenia of Lindley worst of his names are my Exeria [he forgot that six years earlier he had published Erioxantha Raf. as a new name for Eria] and Stenopolen—His Sophronia or Sophronitis, name preoccupied is my Lophoglotis &c. His Georchis is inadmissible, unless Orchis be abolished, it is my Geobina. His Mon-Acanthus is my Cuculina &c."

In this short paragraph Rafinesque actually published seven new generic names, and there was no valid reason for making any substitution other than Rafinesque's invalid argument that, as originally proposed, the names that he would so casually displace did not agree with his own set of rules. Such work is utterly indefensible and has no place in descriptive botany; and yet Rafinesque is perhaps no more to be condemned

for his strange practices than are some of his predecessors, contemporaries, and successors.

#### Non-Publication of Certain Names

Here are examples of non-transfer of specific names from Rafinesque's Sylva Telluriana 24. 1838. He proposed and described certain new genera as segregates from the older Genista Linn. and Cytisus Linn. in Avornela Raf. and Eutline Raf. Following the technical generic descriptions he listed the species he intended to transfer to Avornela thus: "This as a genus or subgenus must contain many sp. of Genista and Cytisus, such as G. canariensis, candicans, linifolia &c." For Eutline the statement is: "Types Genista germanica, sagittalis, decumbens." Nowhere did he actually publish new binomials under Avornela or Eutline. Rafinesque himself assumed that in so entering older binomials under new generic names he was actually publishing these as new names, and many of his successors have accepted this as publication. A classical example in this field is Robert Brown's Prodromus florae Novae Hollandiae (1810) which actually contains many hundreds of entries, corresponding to those cited under Avornela and Eutline which later authors have accepted as valid transfers; and they were entered in Index Kewensis as published with R. Brown as the authority. In many cases the Index Kewensis entry is the first one where the new binomial actually appears, but in perhaps as many, or even more numerous, other cases one must spend much time and effort in searching the post-Brunonian literature to find the first entry where the actual transfer was made. Clearly it would be much simpler in such a case to accept the Prodromus entry as effective publication, but the rules eliminate this.

As an example of a new Rafinesque generic name where he did actually effect valid transfers of the specific names may be cited his treatments of Laburnum Raf. and Diaxulon Raf. on the same page with the two genera cited above. Here, following the technical descriptions, the entries are: "Type Laburnum pendulum Raf. or Cytisus laburnum auct." and "Types D. argentum prolifer &c. or Cytisus of auct."

Rafinesque himself, like many other botanists, assumed that when in listing binomials under their original generic names, when he segregated a certain group and proposed a new generic name for it, that he actually transferred the listed species to the new name. An example of this is: "Crocolos cal. camp. membranaceo trilobo. Salvia aurea colorata, pomifera, calicina" Fl. Tellur. 3:93. 1836 [1837]. Three years later, Aut. Bot. 122. 1840, he listed one of these species, with a reference to the Flora Telluriana as "Crocolos pomifera Raf. Fl. Tel. 2[3] p. 93. Salv. do L-Creta, Syria." Clearly he did not publish any valid transfers in 1837 as listed in Index Kewensis, for all that he did then was to indicate that certain species of Salvia belonged in his new genus Crocolos: three years later he did transfer one specific name, and for Crocolos pomifera (Linn.) Raf. the Autikon Botanikon reference is accepted. The other

three species listed were not actually transferred until the names appeared under *Crocolos* in *Index Kewensis* 1893; these and some hundreds of similar cases are entered in this index as "Raf. ex Jacks\*. Ind. Kew." for as far as the published record goes this is the first place that the specific names appear under *Crocolos*.

#### Sources of Rafinesque's Names

Rafinesque's precocious mind, as expressed by G. Brown Goode in 1895, wandered at will over the entire field of books and nature. It is clear that he had a very wide knowledge of the more important publications on natural history and an unusual command of modern and of classical languages, as he somewhat boastfully states, *Life of Travels* 8-9, 1836:

"I never was in a regular college, nor lost my time on dead languages; but I spent it in learning alone and by mere reading ten times more than is taught in schools. I have undertaken to learn the Latin and Greek, as well as Hebrew, Sanskrit, Chinese and fifty other languages, as I felt the need or the inclination to study them."

Naturally many of Rafinesque's new generic names were derived from classical sources, quite as most other botanists have operated in attempting to devise descriptive names. Many were selected from here and there in pre-Linnaean literature of which Rafinesque manifestly had a wide working knowledge; others were taken at second hand (modified or unmodified) from Adanson's Familles des plantes (1763) which he specifically mentions as an excellent source book for names. He had no inhibitions as witnessed by his own statement, Fl. Tellur. 1: 16-17. 1836 [1838]; "I am never at a loss for names, as Linnaeus was when he framed Quisqualis [= which and of what kind]; I could readily supply 20,000, all good." He did not always adhere to the strictly classical forms and not infrequently modified words by eliminating syllables in order to shorten or otherwise to improve proposed names. This practice is, at times, somewhat misleading to those who are intrigued with meanings, a case in point being Diodeilis Raf., as explained by him, "abridged from Diodontocheilis!"

#### ARBITRARY NAME CHANGES

He proposed his own scheme of classification of the major groups of both plants and animals and devised his own rules of nomenclature (see p. 9), neither of which was ever accepted by other naturalists. A considerable number of his new names may be explained by the rules that he originated and applied. If generic names were too short he lengthened them, some examples being Anthogayas Raf. for Gayas Linn.; Bletiana Raf. for Bletia B. Br.; Characias Raf. for Chara Linn.; Callaria Raf. and Callaion Raf. for Calla Linn.; Cressaria Raf. and Chloryta Raf. for Chlora Linn.; Cressaria Raf. for Cressa Linn.; Colaria Raf. for Cola Schott; Cryptina Raf., Cryptella Raf. and Cryptaria Raf. for Crypta Nutt.; Doniana Raf. for Donia R. Br.; Elateum

Raf. for Elate Linn.; Erioxantha Raf. and Exeria Raf. for Eria Lindl.; Eucodon Raf. for Codon Linn.; Globbaria Raf. for Globba Linn.; Ingaria Raf. for Inga Willd.; Leeania Raf. for Leea Linn.; Leucasia Raf. for Leucas R. Br.; Lemapteris Raf., Phyllitis Raf., Pteridium Raf., Pterilis Raf., and Peripteris Raf. for Pteris Linn.; Lotulus Raf. for Lotus Linn.; Mayzea Raf. for Zea Linn.; Nostocus Raf. for Nostoc Linn.; Poagris Raf. for Poa Linn.; Theaphyla Raf. for Thea Linn.; and Tuberium Raf. for Tuber Pers.

If names were too long they were shortened, such as Amagris Raf. to replace Calamagrostis Roth; Lifutia Raf. to replace Lightfootia l'Hérit; Ludovica Raf. to replace Carludovica Ruiz & Pavon; Tabernaria Raf. to replace Tabernaemontana Linn.; and Tarpheta Raf. to replace Stachytarpheta Vahl. He objected to what he called mongrel names, half Greek and half Latin (some of our very best classical scholars have at times been guilty of such solecisms in botany), and so abandoned Vincetoxicum (Rupp.) Moench for Gonolobus Michx., and proposed Scyphopteris Raf. to replace Scyphofilix Thouars. There was no warrant for any of these changes, not one of the new names was ever accepted by any other botanist, and there is no reason why any of them should be. Rafinesque made the changes to bring the names within the provisions as set forth in his own rules of nomenclature.

#### PROVISIONAL OR ALTERNATIVE NAMES

Rafinesque was one of the earliest botanists to propose any considerable number of provisional or alternative names, such ill-begotten names now being eliminated under the provisions of the International Code of Botanical Nomenclature. Thus Cryptina Raf., Cryptella Raf., and Cryptaria Raf., all published in a single line, were provisional new names for Crypta Nutt., and Washingtonia Raf., Osmorhiza Raf., and Gonantherus Raf., also published in a single line, with no descriptions, were provisional names for which Rafinesque later selected the name Osmorhiza. In publishing the new generic name Quamasia he states:

"If Quamasia [Raf.] is deemed a name too barbarous I offer two substitutes, Lemotris and Bulbedulis!" Fl. Tellur. 2: 25-36. 1836 [1837]. See also the strange case of the three different genera that he named Rafinesquia in honor of himself, where in each case he published alternative names as discussed below. Some scores of new generic names proposed by Rafinesque fall in this category, not one of which is valid. As to binomials note his casual treatment of Floerkea proserpinacoides Willd. (F. uliginosa Muhl., F. lacustris Pers.), Am. Jour. Sci. 1: 375, 1819. In objecting to the length of Willdenow's specific name and even although two other names had been published for it, he says: "even the name uliginosa is liable to some slight objection; and did I think myself permitted to coin a new name, while so many have been proposed already, I should have called it either F. tenella, or F. flaccida, or F. olitoria," again

three new names for a single entity, in a single line, not one of which was necessary or desirable.

# GENERIC NAMES DEDICATED TO HIMSELF

Strangely he published three different genera dedicated to himself in 1837 and 1838, in Rafinesquia Raf. (Leguminoseae) with the alternative name Flundula Raf., stating that it: "is one of those I propose to dedicate to myself, as Linneus did for Linnea [not true, Linnaea was originated by Gronovius], but I propose a second substitute, in case there is a previous Rafinesquia." Rafinesquia Raf. (Labiatae) with the alternative name Diodeilis Raf. was proposed with merely the statement: "here is another Rafinesquia for a fine shrub mistaken by all authors, and forced into 3 Genera! Cunila, Melissa, Gardoquia! if not approved I add a 5th name! [Diodeilis Raf.]," and a year later regarding this one: "it is one of the Genera to which I give my own name, and if any one cavils at it I offer a second [Diodeilis] abridged from Diodontocheilis! that I may not lose the merit of my sagacity in ascertaining this Genus." The third Rafinesquia Raf. was a representative of the Bignoniaceae: "another beautiful G. that I dedicated to myself if the Rafinesquia of New Flora 600 is not deemed good enough, and I add a second name [Etorloba] meaning heart pod, if any one cavils at this again." Apparently some of his colleagues cavilled at Rafinesque's preposterous action in no uncertain manner. One gains the impression that Rafinesque was, at times, exceedingly naive. Yet the forgiving botanists have actually conserved the synantheraceous generic name Rafinesquia Nutt. (1841) against Nemoseris Greene (1891) in spite of the preoccupation of the former name by the three that Rafinesque proposed.

#### Corrections of Earlier Names

He noted various errors made by his predecessors in misspelling generic names dedicated to individuals and accordingly for Gaultheria Linn., dedicated to Hughes Gaultier (Gaulthier, Gauthier, Gautier), he proposed new names in Gaultiera Raf., Gautiera Raf., and Guateria Raf.; and for Marsilea Linn. the correction was made to Marsiglia Raf. in 1837 and for the same reason that Trevisan independently made the same change in 1877, the family name being Marsigli. Vollman in 1914 accepted Amelancus F. Muell. to replace Amelanchier Linn. in ignorance of the fact that Rafinesque in 1834 had proposed the new name Amelanchus, and in 1837 Amelancus, for the reason that Amelanchier Medic. was not classical, being merely the French vernacular name for a European species of the genus. One wonders how far modern botanists might be willing to go, in following a strictly classical line, in view of the fact that we unhesitatingly accept hundreds of generic names, some unaltered, some slightly changed, based on the vernacular names in use here and there outside of Europe such as Abuta, Bombax, Camassia, Canavali or Canavalia, Caragana, Catalpa, Ceiba, Durio, Gaudua, Guaiacum, Kalanchoe, Kibara, Kibatalia, Pandanus,

Sassafras, Sesban or Sesbania, Tangaraca, Tibouchina, and Tsuga, to mention only a few of them.

Again if names were uncouth, they were improved in such cases as Kranikofa Raf., Kranikovia Raf., Kraschenikofia Raf., and Krasnikovia Raf. (plus also the minor variants Krascheninikofia Raf. and Kraschenikofia Raf.) for Krascheninikovia Gueldenst. Rafinesque manifestly considered himself thoroughly competent to correct not only the work of his contemporaries, but of his predecessors as well.

#### DEPENDENCE ON MEMORY

Whoever will take the trouble to scan the entries in this index will at once observe that Rafinesque depended too much on his rather phenomenal memory, not infrequently proposing a new name for this or that genus, forgetting that he had previously proposed a different name for the same group, and for the same reason or reasons, earlier in his career. Examples are the Krani-Lemapteris-Pterilis, Erioxanthakofa-Krasnikovia, Exeria, Callaria-Callaion, cases mentioned above, to say nothing of such extraordinary ones as Polanisia-Podanisia-Polanina-Polanysia-Potamisia (Polanisia Raf.), and the Hicarya-Hicoria-Hicorias-Hicorius-Hicorya-Scoria-Scorias (Carya Nutt.) cases, with, in the last group, the additional sectional names Drimocaria, Glycaria, Hexacaria, and Pacania.

#### Typographical Errors

In another category are such variants as Ioxylon Raf., Joxylon Raf., and Xoxylon Raf. = Toxylon Raf.; Iraupalos Raf. for Traupalos Raf.; Jangaraca Raf. for Tangaraca Adans.; Jontanea Raf. for Tontanea Aubl.; Irillium Raf. and Irillium Raf. for Trillium Linn.; Spogopsis Raf. and Sponcopsis Raf. for Ipomopsis Michx.; Trasera Raf. for Frasera Walt.; Tuchsia Raf. for Fuchsia Linn.; Sivetes Raf. for Isoetes Linn.; and Tsotria Raf. for Isotria Raf. The changes here were accidental, not deliberate, and in many cases were due to the fact (not always) that Rafinesque had no opportunity of proof-reading the papers in which they appear. They are typographical errors and as such should have no standing; and yet it is rather amusing to note Dr. Greene's contention that the misspelled Ioxylon Raf. must be accepted in preference to Toxylon Raf. on the basis of strict priority. In spite of Benjamin Silliman's statement, Am. Jour. Sci. 40: 237. 1841, to the effect that Rafinesque's manuscripts were "prepared with his beautiful and exact chirography, and in the neatest form of scientific papers," there is plenty of evidence that there was trouble, as far as compositors, proof readers, and editors were concerned as between the capital letters I, J, and T in Rafinesque's copy.

# DELIBERATE ORTHOGRAPHIC CHANGES

There is another fairly large category of new Rafinesque names due to his elimination of the diphthong æ it usually becoming e in specific names, and his aver-

sion to the use of double letters such as "II," where we note a rather extraordinarily long list of both generic and specific names, deliberately published, as for example Theaphyla Raf., recorded in indices as Theaphylla. If he had to consider a species proposed by an earlier author as microphylla, macrophylla, etc., the names appear in Rafinesque's works as microphyla and macrophyla. It does seem to be rather pedantic to list these minor variants; and perhaps the listings should have been confined to those names where only the initial letter was involved as aetnensis versus etnensis, aegyptiaca versus egyptiaca, etc. In general, however, the minor variants due to Rafinesque's orthographic idiosyncrasies have been listed as they were detected.

#### Nomina Nuda

There is also a fairly large total of nomina nuda for both generic and specific names (in binomials alone about 825 cases) and little is gained in even listing these although it has long been current practice to include such names in standard indices. As to generic names Rafinesque published a considerable number of new ones with no documentation whatever, there being no indication of the basis of these. Yet in a high percentage of cases it is possible definitely to place many of them, examples being Figonia Raf., 1815 (certainly from Liriodendron figo Lour., 1790) = Michelia Linn.; Sampaca Raf., 1816 (certainly from Sampacca Rumph., 1741) = Michelia Linn.; Cananga Raf., 1815 (certainly from Cananga Rumph., 1741) = Cananga Hook. f. & Th., 1855 (Canangium Baill.); Naruma Raf. 1815 (certainly from Narum Adans., 1763, Narum-Panel Rheede, 1679) = Uvaria Linn.; Funisaria Raf., 1815 (certainly from Funis musaria Rumph., 1747) = Uvaria Linn.; Lussaria Raf., 1815 (certainly from Lussa radja Rumph., 1755) = Brucea J. S. Mill.; and Cherimolia Raf., 1815, with perhaps Ambotia Raf., 1815, and Atnara Raf., 1815 = Annona Linn.

There are, however, other nomina nuda in this class that I have not been able to place even to the family, such as Adipson Raf., Hemiarinum Raf., Hepatitis Raf., Hexamium Raf., Sclerotris Raf., and Xiphodendron Raf. In other cases the major group is clear, such as Xeregathis Raf. (Compositae), and Smirius Raf. (Rubiaceae). In some cases individuals more widely familiar than I am with the pre-Linnaean literature of botany may be able to suggest reductions, for in the cases cited above, where I have made definite reductions of generic names published as absolute nomina nuda, most of them are traceable in the older literature appertaining to the Indo-Malaysian region with which I am reasonably familiar.

The vast majority of Rafinesque's new varieties are strictly nomina nuda, as noted above (p. 28). Were Rafinesque's herbarium extant undoubtedly many of these could be reduced provided it was considered expedient to attempt this, but without specimens nothing can be done with them. Here, as noted elsewhere, one may legitimately question the wisdom of even listing

nomina nuda. This same statement also applies to the rather numerous nomina nuda that appear as binomials.

#### Sources of Rafinesque's Data

Rafinesque compiled his data for publication from a very wide variety of sources. While it seems to be clear that he did acquire personal copies of a great many standard floristic works, his attention was by no means confined to these. Even before he returned to Philadelphia from Lexington, Kentucky, in 1826, he claimed to have about 1000 volumes in his library. In Philadelphia he had access to such serials as Curtis's Botanical Magazine, Lindley's Botanical Register, and to such extensive works as Rumphius's Herbarium Amboinense, Rheede's Hortus Malabaricus, Ruiz and Pavon's Flora Peruviana, and numerous other standard works in the institutional libraries of that city; and from these he copied data that intrigued him into his series of note books, from which at later dates he extracted data for publication. His method of compiling data has been briefly discussed by Pennell.28 He states:

"Apparently whenever he [Rafinesque] detected anything new, he entered his brief description of it in a manuscript book, where they follow a sequence regardless of actual classification. We have three such books, with such entries: 'Neocloris' begun in New York in 1817 and continued to 1825; 'Neophyton' in three parts, all dated 1830; and a 'Mantissa', in three parts, dated 1830 —. Apparently in preparing a text for publication, he copied these descriptions into works that he later printed. It is always interesting to happen upon an author's source-book."

#### RAFINESQUE'S HERBARIUM

Looking back to the early decades of the past century the modern systematic botanist is apt to be shocked at the casual manner in which herbaria were then treated. When the early American botanists commenced to assemble herbarium material this was strictly on the basis of private collections, there being, in the colonial period and in the early years of national status of the United States, no institutional interest in this matter. Many of these private herbaria were not preserved although here and there some came into the possession of institutions and were thus perpetuated, such as the Muhlenberg herbarium, the Short herbarium, the Schweintz herbarium, and others in Philadelphia, and the Elliott herbarium in Charleston. Various collections made in the colonial period, such as those of Clayton and Walter, were fortunately taken to Great Britain or to Europe where they were carefully preserved, as were the collections made by such early explorers as Kalm, Michaux, and others. The first important institutional herbarium in the United States was established by the Academy of Natural Sciences of Philadelphia, antedated by certain private herbaria that were presented to the American Philosophical Society and later transferred to the Academy of Natural Sciences. Naturally to Philadelphia gravitated a certain number of private

<sup>28</sup> Pennell, F. P. The Life and Work of Rafinesque, Transsylvania College. Bull. **15**(7): 66. 1942.

herbaria that had been built up by interested citizens, for that city was the first important botanical center in the United States. Even Amos Eaton, author of our first popular Manual of Botany, of which eight editions were issued between the years 1817 and 1840, had little concept of the value of herbarium material, and left only a small, most fragmentary, and a practically valueless collection which is now at Yale University. With us it was not until the era of John Torrey and Asa Gray in New York (the latter after 1841 in Cambridge) that herbaria became standardized and the importance of carefully preserving reference material utilized in characterizing new genera and new species was more generally recognized.

No matter what Rafinesque's faults were, and they were many, he does deserve the credit for realizing the importance of assembling herbarium specimens for study purposes in spite of the fact that we must admit that he used very poor judgment in drawing conclusions on the basis of a study of such material. At a time when most of the few amateur and professional botanists in the country showed very little interest in, or knowledge of, the importance of preserving such study material, Rafinesque, on the basis of his own limited resources, continued to build up what was perhaps, for the time, the largest herbarium in North America. At the time of his death in 1840, it must have contained at least 50,000 specimens, and was actually valued by Rafinesque at \$6,000.00.

No matter how poorly Rafinesque's specimens were prepared, no matter how badly the material had been damaged by herbarium beetles and other pests, this collection, enormously rich in holotypes, deserved a better fate than it received at the hands of Elias Durand, a botanist who was personally acquainted with Rafinesque. As indicated below, Durand on acquiring the herbarium several years after Rafinesque's death, discarded most of the Rafinesque specimens, on which that erratic genius had based scores of new genera and many hundreds of new species of plants, as utterly worthless. After all a holotype is a holotype, no matter if the species which was based upon the specimen had an earlier name or names, no matter how poorly the specimen had been prepared.

Rafinesque states that he commenced to build up his herbarium in 1795; he was then only twelve years old. Wherever he resided, in southern France and in Italy, previous to his making his first trip to Philadelphia in 1802, and in Sicily between the years 1805 and 1815, he assiduously collected botanical material as he had the opportunity. Naturally he continued this activity after his return to the United States in 1815.

Returning to Palermo, Sicily, in 1805, he continued to reside there until 1815, visiting various parts of the island (he says that he travelled 1600 miles in Sicily), even ascending Mount Etna in connection with his

botanical explorations. In this period he commenced exchanging duplicate specimens of his Sicilian and American plants with various other botanists, a practice that was continued more or less throughout his life. Thus it is that we may expect to find certain historically important Rafinesque specimens in such herbaria as those of Raddi, DeCandolle, Moricand, Arnott, Hooker, Bastard, Haworth, Savi, Agardh, Bory, Schreber, Bivona, Swainson, and perhaps a few others, in so far as these formerly private herbaria are still extant as parts of institutional collections, as well as in institutional herbaria in Paris, Geneva, and London. The above are some of the individuals and botanical centers which Rafinesque lists as recipients of specimens from his early collections. In the United States, the New York Botanical Garden, which possesses the Torrey herbarium, for Torrey carefully preserved most of the specimens Rafinesque sent to him, and the Academy of Natural Sciences of Philadelphia are the only American institutions that possess any considerable number of Rafinesque specimens. Mr. C. A. Weatherby, Rhodora 42: 96. 1940, expresses the opinion that the best set of Rafinesque's plants in existence is at Geneva (De-Candolle herbarium).

Most of what Rafinesque had assembled up to 1815, other than such duplicates as he had distributed here and there, was lost in his disastrous shipwreck on Race Rocks, near Fisher's Island, Long Island Sound, on his return voyage to the United States, November 2, 1815, as detailed by him in his Life of Travels 48, 1836. He later stated, Atl. Jour. 1: 167. 1833; Herb. Raf. 3. 1833, that this loss covered the accumulations of twenty years including his Sicilian collection with 2000 species represented by 20,000 specimens. It naturally included his North American collections assembled in the years 1802 to 1804, including the holotypes of his various new species, based on these collections. These early collections were made in Pennsylvania, New Jersey, Delaware, Maryland, District of Columbia, and Virginia. In 1816 he commenced to rebuild his herbarium and to this he devoted a great deal of time, money and energy during the succeeding twenty-four years.

In accordance with his own manuscript account of January 1, 1821, now preserved among his papers in Philadelphia, his herbarium then contained 12,745 species represented by 37,740 specimens, the record of five years only. In the inventory the collection is broken down to the numbers of species and of specimens from various parts of the world as follows:

	Species	Specimens
North America	5,000	23,050
South America	350	450
Europe	4,375	11,170
Africa	2,150	2,300
Asia	870	970

In this inventory he lists the specific regions from which he had received material as Egypt, Nubia, Barbary, South Africa, Madeira, Azores, Canary Islands, Cape Verde Islands, Madagascar, Syria, Palestine,

<sup>&</sup>lt;sup>29</sup> Merrill, E. D. & Reeder, J. H. New Plant Names Published by Amos Eaton Between the Years 1817 and 1840. Bartonia 24: 26-79. 1947.

Persia, Anatolia, East Indies, China, Japan, Siberia, Polynesia, and Australia; and in Europe, from England, France, Italy, Sicily, Switzerland, Germany, Poland, Russia, Holland, Denmark, Greece, Turkey, Crete, Spain, and Portugal. It may be that a part of this foreign material was that which he left in Palermo on his departure for Philadelphia in 1815, for he mentions in his Life of Travels 45. 1836, that: "My Herbal was so large that I left a part of it." That he was rather proud of his accomplishment is indicated by the following quotation from an article written in Lexington, Kentucky, and published in the Kentucky Gazette, vol. 36, No. 14, p. 2, Apr. 4, 1822:

"My rich herbarium has been increased with 3,000 foreign specimens, and this is, I believe, the first instance of such valuable collections brought to the western country, where I hope that it may become the foundation of the most extensive botanical collection in the United States, if it is not so already."

It is rather interesting to note the sources of material that he received in exchange, for represented were collections from DeCandolle, Moricand, Trattinnick, Sieber, Bory, Hooker, Haworth, Swainson, Roemer, Schultze [Schultes?], Sheperd, Lesueur, Bivona, Dor [Don], Carr, and Raddi. In addition to minor collections received from various amateurs in North America, he lists the names of those from which he received specimens, and some of these collections unquestionably contained historically important material in the form of isotypes. Among the names are those of Torrey, Short, Miller, Mease, Ward, Crockett, Hart, Mac-Williams, Brereton, Brickell, Mitchell, Eddy, Crawford, Locke, Bradbury, Lewis, Beck, Elliott, Conrad, Halsey, Eaton, Muhlenberg, Schweinitz, Gaissen, Ridgely, Hingston, Steinhauer, Booth, Macarron, Knevels, Schultz, Waterhouse, Adlum, Forrest, Durand, Walton, and Limner. This is a rather comprehensive list of those American botanists and collectors who were active in the early decades of the last century. These data clearly indicate Rafinesque's wide range of botanical interest and his extensive botanical correspondence.

In his First Catalogue of the Botanical Garden of Transylvania University 6. 1824, his estimate of the size of his herbarium was about 10,000 species and 40,000 specimens, as opposed to 12,745 species and 37,740 specimens in his census of 1821. It is interesting to compare his next later estimate, Herb. Raf. 3-10. 1833, Atl. Jour. 1: 167-170. 1833; these two separate accounts of 1833 are practically identical.

"In 1815, I lost by my shipwreck, all my early herbals of Europe and America, made during nearly 20 years, among which a superb herbal of Sicily with 2000 species and 20,000 specimens. In 1816 I began all over again in N. America, and have collected in 18 states, and Canada during 16 years, have received besides, plants from all the States and Territories, from Missouri, Oregon and Texas to Florida, explored our botanical gardens and public herbals, and exchanged with European botanists."

He explained that his own herbarium then (1833) contained about 4200 North American species, 5000 varieties, represented by 25,000 specimens, nine tenths

of which had been collected by himself; and that he had sold or exchanged 10,000 specimens. His foreign herbarium then contained about 3000 species with 8000 specimens "from Europe, Asia, Africa, Polynesia, South America and Mexico." Incidentally he mentions that in his field work he had travelled 15,000 miles "of which 5,000 as a pedestrian botanist over N. America." He also claimed that he then had "1,000 N.G. or N.Sp. or very rare plants, to show or sell, already published or to appear in my supplemental Flora."

For convenience he divided his North American collections into five main herbaria, Alleghany and Atlantic plants, 2000 species; Florida herbarium (but including material from the pine barrens of New Jersey and from the Carolinas), 1500 species; Louisiana herbarium (but including plants of the western regions, Mississippi and Missouri valleys from Louisiana and Texas to Illinois and Missouri), about 2000 species; Oregon herbarium, including specimens from the "Origon mts." [Rocky Mountains] from Upper Missouri [Dakota] to the N.W. coast," 700 species; and a Canadian or boreal herbarium (Arctic regions, Canada, Labrador, Greenland, Siberia), 1200 species.

In addition to these five regular herbaria he mentioned twelve special ones such as new genera and species of North American grapes (Vitis), trees and shrubs of North America, medicinal plants, etc. Further, he had kept together as special collections representatives of various genera in which he had described numerous new species such as Pyrola (15) Prunus (32), Tradescantia (15), Commelina (10), Unisema (9), Dodecatheon (8), Viola (40), Vitis (36), Rosa (24), Viburnum (22), Lobelia (8), Heuchera (9), Trillium (25), Mesadenia (10), Gentiana (20), Clintonia (7), Pavia (7), Anychia (10), Onoclea (5), Iris (12), and Samolus (5); and yet this material that a modern botanist would consider to be priceless, because most of the specimens were actual types, was ruthlessly discarded by Durand as utterly worthless. As a side light on Rafinesque's strange character the following statement seems to be worthy of reproduction:

"I offer to sell, buy or exchange such plants or any other. My price for my N.G. and N.Sp. is \$10. per hundred, the same for gigantic plants. Other American plants at \$5. labelled, or \$4. unlabelled, per 100. Rare plants, at \$6. to \$7. Small plants in portable herbals at \$3. to \$4. per 100. These prices must be paid here on delivery.

"Of about 225 N.Sp. of exceedingly rare plants, of which I shall publish a list; I have only one specimen left, which I hold at 20 cents each, and even some at 25 cents, and will not sell unless I know that they shall be deposited in a public or well-known herbal, where they may be seen."

This apparently was the segregation of the herbarium at the time it came into the possession of Elias Durand and which caused him to comment so caustically on certain collections such as the rare specimens at 25 cents each, and the *Dodecatheon* material as quoted below.

There is little evidence to indicate that Rafinesque ever succeeded in disposing of much of his botanical material by sale, even as there is little evidence that the sales of his privately published technical volumes were even moderately successful. From a purely historical standpoint it is indeed unfortunate that some one of his contemporaries did not purchase the really important sets of specimens that Rafinesque offered; for had this been done by an individual of understanding, then the chances are that very many of Rafinesque's types would have been preserved, and would thus be available to modern botanists for study when it becomes either important or desirable that the status of a Rafinesque genus or species be determined accurately.

Because of Rafinesque's notoriously careless methods his herbarium must have suffered tremendous damage from the ravages of the herbarium beetle and other pests at various times. Thus when he left Lexington, Kentucky, in 1826, to return to Philadelphia, his herbarium remained long in storage with the transportation company, apparently for a period of about four years, due to the owner's inability to pay the transportation charges. Pennell, Bartonia 23: 45. 1945, reproduced a part of a letter from Rafinesque to Torrey, dated Jan. 2, 1832, in which he states: "I find upon an average one tenth of the plants lost or spoiled. . . . The loss will amount to at least 4,000 specimens; but I shall have 36,000 left, large and small." The next period of really serious damage was while the herbarium was in storage for several years in a stable loft in Philadelphia following Rafinesque's death, for to the ravages of the herbarium beetle was added the destructive activities of a colony of rats as described by Durand; see below.

After the ravages incident to several years' storage in Philadelphia from 1827 to the end of 1831, there were, according to Rafinesque, 36,000 specimens in the herbarium, but for the next seven years Rafinesque was to continue to add to his collection. The most important accession was the Collins herbarium, and this must have been a large one; and it was known to have been a very carefully prepared one-see the quotation from Elias Durand below. In his New Flora of North America 1: 70. 1836, Rafinesque states that he was "in hopes of obtaining the Herbarium of my late friend Z. Collins, which contains many new and rare plants collected by himself besides Kin, Boykin, Baldwin, Nuttal[1], Elliott, Ware, Leconte, Schweinitz, &c from Florida and Arkansas to Labrador." Slightly later, op. cit. 2: 12. 1836 [1837] he adds: "That [the herbarium] of Collins was very valuable, and is now added to mine." Mr. Collins died June 12, 1831. The rather disgraceful episode of Rafinesque's suit against the Collins estate is discussed in some detail by Pennell, Transylv. College Bull. 15 (7):43-45. 1942. It was through settlement of this suit that Rafinesque acquired the Collins herbarium not later than 1836, and probably somewhat earlier than that date. Following the statement regarding his acquisition of the Collins collection he estimated that his herbarium then contained 10,000 species and 50,000 specimens. His last estimate of the value of the herbarium was \$6,000.00, which considering the condition of the material was probably an exorbitant price; yet Elias Durand acquired it by paying a storage bill amounting to \$45.00.

Up to very recently it was believed that Elias Durand, who acquired the Rafinesque herbarium, purchased it in order to assist that impecunious individual during his last illness in 1840, and Durand has had the credit of being, in this instance, a charitable individual. Gradually the truth emerges. One statement by Durand regarding his acquirement of the Rafinesque herbarium was written in 1865, the following passage being quoted from his own explanation regarding his herbarium, from Mrs. Agnes Chase's account of the Durand herbarium, Bartonia 17: 40-45. 1935 (p. 42):

"In 1833 or 4, I became acquainted with Mr. Nuttall, from whom I purchased a set of his Arkansas plants. \* \* \* It is also about that time that I purchased the large herbarium of Rafinesque: I did not care much for his own plants. I knew that his specimens were miserable, but he had come to the possession of Mr. Collins' herbarium, had corresponded with Drs. Riddell and Carpenter of Louisiana, and from those sources I expected a good harvest of botanical matter. My hopes were not frustrated. Mr. Collins' collection was to me a most valuable acquisition. He had been an excellent botanist, and on intimate terms and in correspondence with the leading botanists of the time, Elliott, Muhlenberg, Schweinitz, Bigelow, Leavenworth, Blodgett, &c. &c. and especially with Mr. Baldwin and other young and enthusiastic botanists, whom he patronized [i.e., subsidized]. In his herbarium I found the largest collection of southern plants perhaps extant at that time. My herbarium began at this time to be interesting and went on increasing every year."

The date, "about that time" (1833-34) of Durand's acquisition of the Rafinesque herbarium, is manifestly wrong. Rafinesque probably did not acquire the Collins herbarium before 1835 or 1836. Pennell placed the date of Durand's acquisition of the Rafinesque herbarium as 1843 or 1844, a decade later than Durand's statement would infer; yet there may be some significance in the statement that the Darlington herbarium was greatly increased before March 19, 1842, by the arrival of 1500 specimens from Elias Durand. In listing the occurrence of 50 or 60 specimens from the Rafinesque herbarium (received from E. Durand), Prof. Gordon 30 states: "During the preceding year [1841] it has been greatly increased through the arrival of 1500 specimens from Elias Durand. . . . " Among these are certain of Rafinesque's Autikon Botanikon specimens. The actual date, whether it be 1841 or somewhat later, is of no particular importance. It is, however, now clearly established that Durand did not acquire the Rafinesque herbarium until after the latter's death in 1840. The acquisition of certain of Rafinesque's Autikon Botanikon specimens by Darlington in 1841 would seem to indicate that this was the year that Durand acquired the herbarium.

In 1945 additional data became available through the publication of a letter from Elias Durand to Charles W. Short, dated June 4, 1856. The following passages are quoted from this letter as published by Pennell: <sup>31</sup>

so Gordon, R. B. The "Darlington Herbarium" at West Chester. Bartonia 22: 6-9. 1943.

<sup>31</sup> Pennell, F. P. How Durand Acquired Rafinesque's Herbarium. Bartonia 23: 43-46. 1945.

"Yes! My dear Sir, I bought Rafinesque['s] herbarium—or in better words, it was forced upon me by his executor, Dr. Mease, who had no money of the deceased in hands to pay 45 Dollars storage. 45 Dollars . . . What poor Rafinesque estimated at 6000!

"But it was truly a dunghill, from the circumstance that it had remained years in stable garret, where a numerous colony of rats found it a convenient hiding and breading [breeding] place. It required indeed a botanical zeal equal to mine to consent [to] transferring to a decent house 6 cart-loads of that prodigious mass of corruption \* \* \* Not being fit to place in a room, I removed it to an obscure cellar, where, for a whole winter, I was occupied, by candle light, to separate the good from the rotten.

"Rafinesque's own specimens were trash, incomplete, good for nothing; He was the worst collector I ever knew; But I found in Collins' herbarium, in your own and Dr. Buckley's plants, enough to repay my forty-five Dollars, my soap & cologne

"There I saw the wonders he boasted of-The series of what he called his very rare specimens at 25 cents apiece, and a very small piece too; a disfigured flower and a few leaves, not spreading but more or less reflexed and rumpled; as, for instance, his 8 or 9 species of Dodecatheon, all made up from the scapes more or less furnished with flowers of the common species, with leaves belonging to other genera. \* \* \* But enough about that poor insane-Requiescat in pace!

"If Rafinesque, in this instance [regarding a species of Hypericum], had hit upon a new species, it was not always his case. No writer has ever made more lies than this poor insane man. I say insane—to justify, in some measure, his most impudent stories: Depend upon it, he never saw of his pretended thorny Aesculus but the fruit of your Aesculus glabra."

The Elias Durand herbarium was presented by him in 1868 to the Muséum d'histoire naturelle, Paris, it being there maintained as a separate collection under the terms of his gift. It has apparently been little consulted by American botanists, but Mrs. Agnes Chase has examined it for the grasses and Doctor Pennell for the Scrophulariaceae. What a very thorough task Durand accomplished in eliminating the Rafinesque material is indicated by the fact that Mrs. Chase found but a single specimen representing Rafinesque's new genera and new species of grasses, while of about seventy species of Scrophulariaceae that Rafinesque described as new, Doctor Pennell found representatives of only seven. This Durand-Rafinesque episode is excellently summarized by Doctor Pennell, Bartonia 23: 45. 1945, as follows:

"We can picture Durand toiling by candle-light in an 'obscure cellar' of Philadelphia just a hundred years ago, and see his eyes brighten with pleasure as he came upon some collection of Elliott, or Riddell, or Carpenter, that he deemed worth saving. Meanwhile the trash container was being filled with the undoubtedly poor specimens that bore however the peculiar and strange names that Rafinesque had assigned to them. At some new generic name attached to something quite familiar to him-say, Aureolaria for a yellow Gerardia-we can see the impatient thrust that sent it to oblivion. Durand never dreamed that there would come rules of priority into nomenclature, or any other rules to supersede the perfect settling of our botanical problems that he was witnessing in the work of John Torrey and Asa Gray. Besides, who would ever think of reviving, or even investigating the names suggested by such a madman as Rafinesque? \* \* \* Would that someone of a century later could have been in the cellar with Durand and told him which specimens to save! What an incredulous glance such an interloper would have received!"

Such was the fate of Rafinesque's herbarium. No matter how inadequate or how poorly prepared his herbarium specimens were, everything that could by any stretch of the imagination have been interpreted as a holotype—the specimens were clearly named by Rafinesque-should have been preserved. Instead Durand deliberately discarded many many hundreds of holotypes, only occasionally saving a Rafinesque specimen that happened to be well prepared; the basis of selection was not the historical importance of a specimen but rather how well it was prepared. Thus the good specimens in the Collins herbarium were saved although most of them had little historical significance. Some of the material that he saved, particularly European specimens that he thought would be of very little value to the Paris Museum, he presented to his correspondents here and there, but most of the historically important specimens went into the trash heap. Thus it is that one finds in the Darlington herbarium at the State Teachers College, West Chester, Pennsylvania, and in a few other places, occasional specimens, chiefly representing European

species, from Rafinesque's herbarium.

If a reasonably high percentage of Rafinesque's holotypes were extant today, it would be a very simple matter to determine accurately the exact status of a great many of his described species and even some of his described genera that are still of doubtful status, merely by examining the specimens on which the descriptions were based. This is no longer possible, thanks to the thorough task of destruction that Durand accomplished a century ago. As long as we or our successors have to consider the Rafinesque entities there will remain a distinctly large residue that cannot safely be placed from a study of the brief descriptions alone, even when studied in connection with ample modern collections from the historical localities. Thus the lists of genera and species incertae sedis at the ends of monographic treatises will continue to be rich in doubtful Rafinesque names if monographers believe in thorough bibliographic work and really attempt to account for all validly published names within the group and area under consideration. Many will doubtless be content to ignore what Rafinesque did in such genera as Citrus, Vitis, Gossypium, Trillium, Quercus, Pyrola, Prunus, Viola, Rosa, Viburnum, Gentiana, Fraxinus and the various genera that Rafinesque segregated from some of these, as well as in many other genera where he let his imagination run wild, as it were, in segregating new species. Personally I cannot escape the conviction that where the status of a Rafinesque entity can be determined with reasonable certainty, be it genus, subgenus, species, or variety, his names, if valid, should be recognized, either as the accepted name for this or that group, or as definite synonyms. Even if this idea be consistently followed, there will still be plenty of Rafinesque names that can never definitely be placed.

#### RAFINESQUE'S LIBRARY

Within his means, which up to 1815 were apparently reasonably ample, Rafinesque built up a significant personal library. This assemblage of literature that he had used while residing in Palermo 1805-1815, was lost when the ship on which he was a passenger was wrecked in November, 1815. Soon after his reestablishment in the United States he commenced to acquire reference books, which, in 1832, he valued at \$1250.00. What became of his library we do not know, although it is recorded that at the administrator's auction sale of Rafinesque's effects following his death in 1840, one lot of clothes and books brought \$22.29, manuscript books \$5.00, and waste paper \$20.25. Yet it is also recorded that there were "eight loads of books, minerals and shells" sent to the auction rooms. The total receipts from the sale was \$131.42, leaving the estate indebted to the executor in the amount of \$13.43.

#### THE FATE OF RAFINESQUE'S PUBLICATIONS

One can only conclude that the bulk of Rafinesque's unsold stock of his numerous publications issued between 1830 and 1840, was included in that item "waste paper" which brought the magnificent sum of \$20.25. This would include all or most of his stock of such now very rare items as the Sylva Telluriana, Flora Telluriana, Autikon Botanikon, Alsographia Americana, Herbarium Rafinesquianum, Atlantic Journal, American Manual of Grape Vines, American Manual of Mulberry Trees, New Flora of North America, Good Book, American Nations, Safe Banking, Genius and Spirit of the Hebrew Bible, Celestial Wonders and Philosophy, Ancient Monuments of North and South America, Pleasures and Duties of Wealth, and various other smaller publications issued during the last hectic decade of Rafinesque's life. We know from Rafinesque's own statement that the original edition of most of the botanical works were limited to from 100 to 160 copies, small enough editions to ensure the ultimate rarity of these works even had no catastrophe happened to the undistributed stock that remained when Rafinesque died. Thus the Autikon Botanikon issue was 100 copies (see that work, p. 2), and that of the Flora Telluriana was 160 copies (see that work 4: 6. 1838). As the matter now stands for many of the above works, the known copies are very few in the libraries of the world, sometimes only two or three, sometimes from eight or ten to a dozen or fifteen.

## RAFINESQUE'S OWN DISTRIBUTIONS

It is known from Rafinesque's own statement that he distributed a limited number of complimentary or perhaps review copies to selected correspondents in Europe and in America, but the number so distributed must have been small. It is also known that he offered to exchange copies of his own publications for other works that he desired to acquire. It is manifest from the record as we know it that Rafinesque's actual sales of his more technical botanical volumes were very limited. His associates were not impressed with either his knowledge, his qualifications, or his publications, and many of them were so violently opposed to his

ideas of classification and his profuse publication of new genera and new species that they would have nothing to do with him or with his work. To the conservatives of the time Rafinesque must have seemed to be the incarnation of evil.

#### PRESENT RARITY OF RAFINESQUE PUBLICATIONS

It is now rare indeed that dealers offer any Rafinesque items. Yet it is interesting to note that of one of Rafinesque's works that was certainly issued in a relatively large edition in 1828-30, his Medical Flora, of some practical value at that time, one lot of eight copies was sold at the auction of his effects for \$3.16, and another lot, the number of volumes not indicated, brought \$19.75. A recently quoted price on a single copy of this relatively valueless work is \$135.00; one shudders to think what this dealer might ask were he fortunate enough to acquire a copy of the Autikon Botanikon, the Flora Telluriana, the Sylva Telluriana, or the New Flora of North America, and realized what he had. In 1948 one optimistic dealer offered a copy of Rafinesque's small (55 pages) Précis des découvertes somiologiques printed in Palermo in 1814 for \$250.00; but now that it is available in offset form this price will doubtless be deflated.

#### THE MEDICAL FLORA

It is suspected that this work was perhaps the only one of Rafinesque's independently published volumes for which there was a reasonably good demand, and, for a time, a steady sale. It was published by Atkinson and Alexander, Philadelphia, volume one in 1828, volume two in 1830. No information is available as to the size of the edition but as this was a commercial venture on the part of the publishers, it was for the time doubtless reasonably large. The demand apparently continued due to the place the work took in the propaganda of the devotees of the Thompsonian system of medicine which in the decade from about 1834 to 1844 saw its development and decline. The practitioners of the Thompsonian system were the botanic physicians. One important tenet was that mineral drugs should be avoided and that the only good remedies were those of plant origin. In the decade covered, a considerable number of short-lived periodicals were established in which the word "Botanic" appeared as a part of the title such as Botanic Investigator, Botanic Journal, Botanic Luminary, Botanic Advocate, Botanic Sentinel, etc.32 It is suspected that the rise of this medical cult increased the demand for Rafinesque's text to such a degree that to meet it the first volume was reprinted in Philadelphia, being issued in 1841, the year following Rafinesque's death, as the Medical Botany of the United States. This was not copyrighted nor is the name of the printer or publisher indicated. This was doubtless a Rafinesque rather than an Atkinson and Alexander venture be-

<sup>82</sup> Merrill, E. D. A Generally Overlooked Rafinesque Paper. Proc. Am. Philos. Soc. 86: 72-90. 1942 (p. 80). cause Fitzpatrick <sup>33</sup> reproduced the broadside distributed to advertise the sale of this volume with the other personal effects of Rafinesque. In spite of Rafinesque's distinct care in specifying his objectives and his castigation of the numerous medical sects that then infested the country, his work on medicinal plants became the text of the Thompsonian physicians.

In the introduction to the Medical Flora which was dedicated to Messrs. Torrey, Short, and Elliott "in token of friendship, esteem and respect by their friend, the author," Rafinesque pays his respects to theorists, empirics, rationals, improvers, eclectics, Marabouts, Brownists, Galenists, Mesmerians, Skeptics, chemicalists, calomelists, entomists, herbalists (called also Indian or root doctors), quacks, patent doctors, steam doctors, and others. He states that he gathered his data over many years while travelling through fourteen states of the Union; that his qualifications for the task came from fifteen years of botanical observations and medical researches, and 8000 miles of botanical travels "wherein he diligently enquired and learned from the learned and the illiterate the results of their practical experience"; and that he "never despised knowledge because imparted by an uncouth mouth, and has often made experiments on himself and others to test peculiar facts."

On page xi he states that: "Botanical accuracy has been strictly adhered to throughout, and all the descriptions are original. To avoid other novelties, but few improvements have been attempted or suggested in nomenclature or criticism"; and yet, in this work, which I judge to be perhaps the most creditable of all of Rafinesque's very numerous botanical publications, he as in other volumes, used it as a medium for proposing new names on a distinctly large scale. The 100 illustrations were all drawn by him, giving proof, if proof be needed, that he had actual talent as a botanical draftsman. The figures were republished by him in his series the School of Flora in the Saturday Evening Post and in The Casket, and some of them were used in certain other works that he issued.

Packard <sup>84</sup> has given some attention to the botanic physicians in reference to their relations with Rafinesque, showing how they distorted the latter's suggestions and recommendations to support their theories. He states:

"The Botanic physicians claim as their precursor the botanist, Constantine Schmaltz Rafinesque. His most important work was his 'Medical Flora; or Manual of Medical Botany of the United States of North America,' published at Philadelphia, 1828-1832 [1830]. This book became the vade-mecum of the Botanic physicians. Wilder quotes two of his statements which figure frequently in all the writings which subsequently emanated from the 'Botanics'; 'the popular belief that every country produces simples suitable to cure all their prevailing diseases is not devoid of truth,' and 'there are many modes of effecting cures by equivalent remedies, but vegetable substances afford

the mildest, most efficient, and most congenial to the human frame.'

"It would be hard to find an instance of more flagrant perversion of the views of a writer to suit the objects of the abstractor than the method pursued by Wilder to make it appear that Rafinesque wished to destroy the medical sciences of his day as represented by the works of Boerhaave, Cullen, and Rush, in order that he might establish a new system solely on a botanic basis. Even the quotations which he gives from the pages in which Rafinesque sets forth his object in writing his 'Medical Flora' are not compatible with this view. It must be remembered that medical treatment was at that time largely based on vegetable drugs and what Rafinesque sought was to write a medical botany adapted to the needs of the American physician and pharmacist. He makes no attempt to found a school or a system of treatment. He was an erratic genius and he frequently made rash statements but if one reads his book with an open mind it gives a most favorable impression of his honesty of purpose and even if his views as to the value of certain plants have since been proved exaggerated or wholly erroneous, they are usually in accord with the ideas prevalent in his time."

#### THE PULMEL EPISODE

Rafinesque had pharmaceutical and medical interests and perhaps felt himself competent to treat human diseases at least as well as the average practitioner of the time. When he was interested in furthering the sale of his ill-conceived pulmel as a remedy for pulmonary tuberculosis he actually signed various press items supporting the claims made for the remedy as "Medicus," stating, The Pulmist 8. 1829:: "My dislike of every appearance of empirism, and my wish to avoid censure, induced me to conceal myself under the name of Medicus." While pulmel did not justify the hopes and claims of its originator, one hesitates to condemn Rafinesque for his venture into the patent medicine field. He claimed that he had cured himself of an attack of pulmonary tuberculosis by the use of pulmel. One suspects that the cure resulted from the living conditions, food, etc., that he specified rather than from the pulmel itself, the ingredients of this cure being Rafinesque's secret. One concludes that even here where he sold the book and the remedy for profit, freely advertising both over a period of several years, and actually accepted fees 85 for diagnosing cases of tuberculosis and prescribing treatments to be followed, that he did so in good faith and with full confidence in his medical discovery.

In any case this period was a prosperous one in the financial annals of C. S. Rafinesque, the income from the sale of pulmel plus fees that he received as a consultant on tuberculosis (\$50.00 in the case of Daniel Vanslyke) enabling him to pay his debts, repossess his natural history collections which had been retained by the transportation company for non-payment of transport charges, and embark on the extensive publishing campaign that coincided with the last decade of his life.

<sup>&</sup>lt;sup>33</sup> Fitzpatrick, J. T. Rafinesque. A Sketch of His Life With Bibliography, 42. 1911.

<sup>&</sup>lt;sup>84</sup> Packard, F. R. History of Medicine in the United States 2: 1229, 1931.

<sup>&</sup>lt;sup>85</sup> Weaks, M. C. Medical Consultation on the Case of Daniel Vanslyke. By C. S. Rafinesque, Pulmist &c. Philadelphia 1830. Bull. Hist. Medicine 18: 424-437. 1945.

RAFINESQUE'S PUBLICATIONS GENERALLY IGNORED BY NINETEENTH CENTURY BOTANICAL BIBLIOGRAPHERS

Rafinesque did not receive very much attention from the botanical bibliographers of the nineteenth century, and this is perhaps one of the reasons why so many of his legitimately proposed generic names and binomials were ignored by European and other botanists. Another potent reason, of course, was the extreme rarity of Rafinesque's publications in even the largest European botanical libraries; and yet as early as 1830 Bartling in his *Ordines naturales plantarum* accounted for approximately 70 of Rafinesque's new generic names either as accepted ones or as synonyms from among those that had been published up to that time. This non-availability of many of Rafinesque's publications in London was the chief reason why so many Rafinesque names were not entered in *Index Kewensis*.

In the first edition (1851) of Pritzel's classical Thesaurus literaturae botanicae, sixteen Rafinesque works are included, of which he examined copies in various libraries in Germany, Switzerland, and France. In the second edition (1872) Pritzel, or C. Jessen who edited it, the Rafinesque entries were reduced to four only. B. D. Jackson, Jour. Bot. 18: 170-177. 1880, criticized this procedure, for in comparing the entries in the first and second editions of the Thesaurus he complained about the wholesale rejection of entries under certain authors including Rafinesque.

Pritzel's work is the most significant one in its field ever published in the entire history of botany, covering as it does the independently issued volumes from the beginning of printing to the year 1872. This is a remarkable census of the published literature on botany, sensu latiore, and is an essential tool for all bibliographers and taxonomists. Pritzel had his foibles and his prejudices, and one suspects that he really believed that most of the Rafinesque works were unworthy of inclusion in his *Thesaurus*. Note his treatment of P. J. Buchoz (1731-1807); in the first edition he listed thirty-five Buchoz titles, which in the second edition he reduced to twenty, expressing his adverse opinion of that author in 1851 in these strong words:

"Catalogus noster partem solummodo parvam innumerabilium operum miserrimi compilatoris [n. 27 Jan. 1731, †30 Jan. 1807] continet; recensui quae in bibliothecis botanicorum offendi et alia quaedam *Querardi*. Fraude ac ignorantia aeque eminens scriptor, in cujus ignominiam *L'Heritier* Buchoziam *foetidum* condidit, per semiseculum (1758-1807) ultra 500 volumina consarcinavit."

## PROJECTED BUT UNPUBLISHED WORKS

From the beginning of Rafinesque's publishing career in 1803 he planned a great many works, some of which were never actually written. On the other hand he did complete many manuscripts, particularly during his period of residence in Palermo, 1805-1815, and while he resided in Philadelphia, 1826-1840, which, for one reason or another, were never published. The two periods indicated above cover the years when Rafi-

nesque's income was sufficient to permit him to embark on extensive private publishing programs. The interim, 1816-1825, was first a period of recovery from his disastrous shipwreck of November, 1815, followed by his impecunious years at Transylvania University, Lexington, Kentucky, when his income was very modest; but even in Lexington he actually continued his private publishing career on a modest scale.

The finished or partly finished but unpublished manuscripts prepared during the Palermo years were lost in the shipwreck above mentioned, the titles being listed below. His very extensive publishing activities of the decade 1830-1840 by no means exhausted his stock of completed manuscripts, the original copies of many of these unpublished items being preserved in the library of the Academy of Natural Sciences and that of the American Philosophical Society of Philadelphia.

Note Rafinesque's letter to Persoon, dated June 3, 1814, which he actually published as his Précis,36 where on pages ten and eleven he lists no less than fifteen items. The first four papers had been published but mostly under very different titles. The next three were later published by Rafinesque, as were the last three. Those never published and probably never completed are the Index d'une Flore générale des Etats unis d'Amérique, in which he proposed to include 400 (corrected in the errata to 4000) species of which 100 were new; Descriptions de 100 nouvelles plantes Siciliennes; Descriptions de 800 plantes de l'Amérique Septentrionale, pour servir à une Flora Fredoniensis; Mycologie Américaine ou Sinopsis des Champignons de l'Amérique Septentrionale, this with 800 species, perhaps about one half new; Sinopsis de l'histoire naturelle des Conferves marines de la Sicile, about 70 species, 50 new; Observations sur les Genres Croton, Jatropha, Convolvulus . . . etc.; Flore Sicilienne, containing about 1800 species; and Zoologie Sicilienne, containing about 360 unpublished species.

Listed on the covers of this pamphlet are still other works that he had in hand under the title Ouvrages et Essais déjà publiés par le même Auteur [Rafinesque], but it is certain that some of these were never actually issued. Among these I list his Monography of the Genus Bertolonia; Description of 2 N.G. of Crustaceous Yalomus et Heterelus; A N.Sp. of Fish, Echeneis caudisetus; A New Truff of Sicily Tuber rufescens, with 2 plates; and Monography of the Genus Callitriche. The last three items were sent by Rafinesque to the Linnean Society in London but publication was declined. Rafinesque later complained that he could never interest British organizations in publishing his material. Some of the data included in the above manuscripts were later abstracted and published elsewhere by Rafinesque. I find no evidence that the last two items on the list were ever issued, these being his Cent vingt planches choisies de Panphyton Siculum de Cupani, but he says that the

<sup>36</sup> Rafinesque, C. S. Précis des découvertes somiologiques ou zoologiques et botaniques. 1-55. 1814. Palerme. Reissued in 1948 by the offset process. Peter Smith, New York.

plates were engraved between 1807 and 1812, but that the text had not yet been printed, and the Choix de 40 planches de nouvelles plantes américaines, 1808 à 1811, again regarding which he says: "Le texte n'est pas encore imprimé, plus de 60 N.G. et N. Esp. y sont figures." The plates of both of these works were those that he took with him on his ill-fated second trip to the United States, and they were lost when the ship was wrecked in 1815. It may be noted that Fitzpatrick lists the next to the last title as Cento venti tavoli del Panphyton Siculum di Cupani, quoting this title from the entry in Rafinesque's Specchio (1814), but he saw no copy of it. It is doubtful if it was ever published, yet here one might give Rafinesque the benefit of the doubt, for he says, Fl. Tellur. 1: 24. 1836 [1837]: "My edition of Cupani, and the Amer. plants engraved before 1815, were lost, plates and all in my Shipwreck of 1815 with my herbarium, only few copies having survived" [italics mine]. Tornabene, Quadro storico della botanica in Sicilia, 50-51. 1847, states:

"Il Cav. D. Giovanni Gussone in Napoli conserva 120 tavole del Rafinesque, cifrate co' numeri successivi dall' uno sino al 120 e le tavole sono ugualmente che le mie figurate da una sola pagina, e senza nomi degli obbietti compresi nella stressa"; and in a footnote: "Alcune notizie su queste figure mi sono state date dal Gussone per lettera." On page 50 he further states: "Sessantatrè tavole sono conservate nella mia Biblioteca . . . Nelle mie sessantatre tavole, dodeci trovansi senza numerazione, e portando la lettera T, e le cinquauntuno sono numerate; la cifra più bassa è 5 la più alta 625, i numeri non sono successivi."

Pritzel, Thesaurus, ed. 2, 73. 1872, item 1994 at the end of the long note on Cupani's Panphyton siculum states: "Sub auspiciis C. S. Rafinesque Schmaltz, ejusque observationibus annotationibusque locupletatum imaginibus aereis circiter 700, ab ipsis Cupani schematibus exscriptis et exacte denuo incisis per Salvatorem de Ippolito. Panormie, typ. Giordano. 1807. 4. (Manifesto e prospetto) 8 p., 1 tab. Bibl. Cand." He saw only Rafinesque's prospectus.

The set of proofs in the library of the New York Botanical Garden is probably all that is left of the work illustrating American species. See Gerard's caustic remarks on Rafinesque's figures of Aedycia and Colonnaria, Bull. Torr. Bot. Club 12: 37-38. 1885: "I venture to say that no so absurd fungi as these ever were, or ever will be, found on the face of the earth." Rafinesque could make excellent drawings as indicated by the well executed illustrations of fishes and of some plants in his Caratteri (1810) (eliminating some of his rather grotesque attempts to illustrate his genera Pexisperma, Isolepis, Leptorima, and Phytelas, and perhaps some of the other figures on plate 20), and the really excellent habit sketches in the form of wood cuts of various plants forming the illustrations of his Medical Flora (1828-1830), and repeated in his School of Flora.

Rafinesque's publishing plans were always on an exaggerated scale, and while he resided in Palermo, his proposed titles were by no means limited to the preceding list or to the works that he actually published.

Note the remarkable list on page three of the covers of number ten, volume two of his Specchio delle scienze, October 1, 1814, beginning with number seven (it is suspected that page two of the cover, which is not available, contained six other titles, for number seven is the first one on page three). Among these projected, but never published works are his Generi ornitologici o nuova classificazione degli Uccelli, with 200 genera, half of them new; Sinopsis d'ittiologia o le Definizioni di tutti i generi e le specie di Pesei, with 100 new genera and 500 new species omitted by Lacépède and by Shaw; Sinopsis di Mastodologia o le Definizioni di tutti i generi e le specie di Animali quadripedi e cetacei, with 10 new genera and 100 new species; Quadro dell' Universo e particolarmente dei Corpi organici, a work like the Systema Naturae of Linnaeus; Critica dei generi, o riforma dei nomi generici adoperati per gli Animali e le Piante; Classificazione dei corpi organici, o gli Animali e le piante; Sepiologia o Memoria sopra i generi e le specie delle Sepie di Linneo, with about 20 new species; Saggio sopra il Clima, il Suolo, l'Agricoltura, il Commercio e le Manifatture della Sicilia; Viaggio d'un naturalista in cinque Stati uniti di America, nel 1802, 3 e 4; Viaggio al Monti Nebrodi ed al Monte Etna nel 1809; Algologia metodica o introduzione alla Storia naturale delle Piante marine; Florula Byzantina o Catalogo delle Piante di Constantinopoli, compilata da Sestini, Forskael, Sibthorp, &c; Florula Liburnica o Indice delle Piante di Livorno; Lettere odeporiche e botaniche sopra la Toscana, la Liguria e la Provenza; Piano analittico d'instruzione per la Sicilia; and Miscellanea di molte altre Memorie, Lettere, Saggi, Monografie, Osservazioni &c, sopra tutte le Scienze. The total list of these for the most part never published works, many of which were probably never even completely written, was twenty-two. What the devotees to various branches of natural history and others have missed!

Rafinesque's habit of listing his actually published works as well as his projected ones was continued from time to time. This practice, while it has helped bibliographers in their search for very obscurely published papers, has at the same time resulted in a considerable loss of time and effort on the part of those who have searched in vain for items that Rafinesque listed as published, or at least as having been submitted to this or that individual or institution for publication. A few of the titles actually listed by Fitzpatrick as those of presumably published papers apparently never were issued.

In 1816 Rafinesque published in Philadelphia his Circular Address of Botany and Zoology, in which he discussed in detail his expansive plans for future publishing activities. In this work he lists many titles of other papers that he proposed to prepare, repeating some of the titles listed in the Specchio delle scienze and mentioned above. Here also he lists such items as his unpublished Florula Delawarica, or Catalogue of the Plants Found in the State of Delaware, 1804, and his Florula Columbica, or a Catalogue of the Plants Found in the District of Columbia, 1804. These had been sub-

mitted to Dr. Benjamin Smith Barton for publication in the Philadelphia Medical and Physical Journal but were suppressed by Doctor Barton.87 On pages 15 and 16 he listed the manuscripts that he had nearly ready for the press and which he lost in his shipwreck of 1815. In eight cases he indicated that it was his intention to rewrite the lost manuscripts and publish them either in America or in Europe; here again this plan was fortunately never consummated. His promised Shipwreck of a Naturalist was never published except as this episode appears in his Life of Travels. Two major items in the lost manuscripts appear to have been his Critique des Genres &c., indicated by him as Critic of Genera, or Investigation of all Generic Names of Plants and Animals, and the Distribution des Vegetaux, &c, which he lists as Classification of Plants, or the Natural and Analytical Method Applied to All the Genera of Plants; both of these he listed as among the works that he proposed to rewrite. He did prepare from memory and actually published the technical descriptions of various new genera and species of Sicilian plants in 1817, Am. Monthly Mag. Crit. Rev. 1: 437-440, an extraordinary procedure, but apparently normal to Rafinesque. He states:

"They are extracted from my Fragments of a Flora Sicula which I wrote from memory in January 1816, about two months after my shipwreck. I believe all the characters stated are correct; the plants belonging to those genera having all been observed in the spring of 1815, were freshly impressed on my memory. I therefore consider that should, hereafter, any slight inaccuracies be detected in my descriptions, they will not be material, nor invalidate the establishment, characters and classification of those genera. They are all Dicotyles."

Involved here are the original generic names Adoceton, Phedimus, Pternix, and Vetrix, with ample descriptions. Also eight segregates from Salix, most briefly diagnosed, Disynia, Vimen, Oisodix, Diplopia, Melanix, Amerix, Opodix, and Chalebus. Included also are the original descriptions of twelve new species in Ruta, Euphorbia, Orobanche, Xylosteon, Orchis, Herniaria, Adoceton, Phedimus, Pternix, and Vetrix. Gussone, Flora Siculae synopsis, 1842-43, was apparently unaware of this strange contribution to our knowledge of the flora of Sicily, for he accounted for none of these strangely published species in that voluminous and critical work. Further comment seems to be unnecessary.

One can characterize only as utterly fantastic his proposition to issue a series of publications in which he planned to illustrate and describe all the American [United States] species of plants and animals. Each number was to consist of a plate and from one to several pages of descriptive text, publication to commence in 1818, with from 20 to 50 plates to be issued each month. In addition to the new major works, one botanical, the other zoological, his projected Somiology of North America, the parts were also to be made available to

<sup>37</sup> Little, E. L., Jr. A Note on Rafinesque's Florula Columbica. Proc. Biol. Soc. Washington **56**: 75-66. 1943.

individual subscribers under 115 different titles, some limited to entomology, ornithology, herpetology, mycology, algology, etc. (about 20 general monographs covering all major groups of plants and animals); others covering limited floras and faunas, such as Flora and Fauna Hortulana, Flora and Fauna Medica, etc. (23 titles); state floras and faunas from Maine to Michigan, Illinois, Missouri, and Louisiana and even the Northwest Territory (25 titles); local faunas and floras for the more important urban areas, such as Boston, New York, Philadelphia, Charleston, New Orleans, etc. (12 titles); "tract" floras and faunas, such as Flora and Fauna Maritima (6 titles); and closing with special regional floras, such as those of Greenland, Labrador, Hudson Bay, Bermuda, Florida, Texas, and the northwest coastal region (15 titles).

He optimistically thought that in orders of 100 "numbers" the selling price would be only five cents per number (one plate and one to several pages of text to a number) or should any subscriber "want his plates neatly coloured, he must then pay double the price." He also thought that the work could be completed in eight or ten years! This is his optimistic estimate regarding the significance of his grandiose plans for a great illustrated flora and fauna of North America (chiefly in his mind limited to what was then the United States, his projected but never initiated Somiology of North America):

"As the greatest difficulties in undertakings of such magnitude always lay in the first steps, it is probable that if they are overcome in this instance, similar attempts will be undertaken in Europe \* \* \* ; and if they are entirely modelled on the present plan will complete of course an unparalleled Fabric of Science, raised to the Glory of Nature. In this instance, therefore, as in many others, America will have given the lead, which ought to procure to the present undertaking, the Character of the national work."

If the above formidable program were not enough to keep one man busy-for before he could initiate the work he had to build up his natural history collections and his library de novo-on page 17 he projected still another major work, a Flora and Fauna Chresica, "or chresiology [from the Greek chreios=useful; Rafinesque was intrigued with unusual words] of plants and animals of all parts of the world; and the various uses they have been, or may be put to, by all nations in the widest sense of the words . . ."; and stated that within a few years he intended to undertake this task also. One does not have to prove that in considering Rafinesque one is dealing with a strange individual. This strangeness is manifest in about everything that he ever did, or ever planned to do; and he was always planning for great future undertakings.

The next year he spawned another long list of titles of projected works, which, for the most part, were fortunately never published. In his Florula Ludoviciana 175. 1817, he listed a projected second edition of his Analysis of Nature or Survey of the Universe and Organized Beings, in English and in French, "with considerable additions," the Amenities of Nature or Selec-

tion of Original Travels and Tracts on Natural Sciences, Particularly Geology, Botany and Zoology; and Criticism of Genera, or an Alphabetical Investigation of Generic Nomenclature, "to be published \* \* \* as soon as he can make arrangements with some printers and publishers in America, or in Europe." Following this, two projected periodicals were announced. the Annals of Nature, and Somiology of North America; a 16 page number of the former was actually published in 1820. On pages 171-172 he listed 22 other titles of papers which he proposed to publish in 1818, most of which never saw the light of day in printed form. This same statement applies to the list of 31 titles listed on pages 166 to 171; some were merely titles of papers read before this or that organization, many never published, others published, at least in part, but not always under the titles as there listed.

In the later years of his life, while residing in Philadelphia, Rafinesque was even more expansive in his publishing activities than in his earlier period of relative prosperity while residing in Palermo. One suspects that had he been in a financial position to cover printing costs while residing in Lexington, Kentucky, between the years 1819 and 1825, that his privately published output might have been much greater. After finally settling in Philadelphia at the end of his Lexington period, and, at least for a part of this time in a more favorable financial position, his publishing activities increased enormously. And again, he was constantly planning other projects that never materialized. Note in his Flora Telluriana 1: 6. 1836 [1838] his projected Fauna Telluriana to be a synopsis of the new animals, living and fossil, from all parts of the world, including quadrupeds, birds, fishes, reptiles, crustaceans, polyps, etc.; and on page 24 he says: "I resolved to publish my 500 ICONES RARIORUM in mpt. [manuscript], and also my AUTIKON BOTANIKON or Self figures by specimens of 2500 new or rare plants"; he actually included 1500 of these in this, his last published work.

A little later, Autikon Botanikon 2. 1840, he listed as then in preparation (and the unpublished manuscripts of some of these are still exant) his: "Pomona of North America.-Pterikon or Ferns of N. Amer. and other parts [I have actually examined the manuscript of this]-Lirikon or New and Fine Lilies-Agrostikon or new and rare Grasses—Erikon or figures of Heaths, Andromedas, Diosmas and other Ericoid Shrubs-Autikon Formosum or of Beautiful plants-Dendrikon or new Trees and Shrubs of North America." Probably some of these titles were devised to apply to actual sets of botanical specimens he offered for sale. I believe, because of the extant manuscript of the projected Pterikon, and the fact that in the subtitle of his Autikon Botanikon he stated that it was to include, among other groups, the lilies, grasses, ferns, etc. of all regions, that it was his plan to include the Pterikon, Agrostikon, Lirikon, etc. in the unpublished part of his Autikon Botanikon.

Some of these treatises would have been rather extensive. Thus on page 5, as to his proposed Agrostikon, he observed that it would contain 500 species of grasses and sedges. It is of interest to note here, because of the very great rarity of most of Rafinesque's publications, that his plan in reference to the Autikon Botanikon was to publish only 100 copies. While still at the apogee of his publishing activities he promised additional volumes, New Fl. N. Am. 4:4. 1836 [1838] as follows:

"The other works to be produced by myself gradually until 1840 and 1850, will also be numerous—my history of the American Nations before and after Columbus was suspended after two volumes were issued; but shall now be resumed speedily, and the next volumes comprize the history of the Tsalagis or Cherokis.—Of the Tols, Chols, Chontals &c, and other Atlantic Nations of Central America.—Of Muyzcas and other Nations of New Granada.—Of the Nations of Austral America &c."

The earlier lists will give some idea of the avalanche of publication that was averted in 1815 when he lost all his collections, books, manuscripts and drawings in the shipwreck in Long Island Sound. For the later lists the only inhibiting influence would have been Rafinesque's financial inability to cover the printing costs. Yet in spite of his always modest income, he lived so frugally that he might well have been able to continue his publishing career had he lived. He had the opportunity of posing a great many more enigmas in nomenclature in the form of inadequately described new genera and species, for the agrostologists, caricologists, pteridologists, dendrologists and others to solve. It may well be that his relatively early death was a blessing in disguise for both botanists and zoologists.

One finds a striking list of titles entirely outside of the field of biology in his American Nations 1: 41-42. 1836, these being projected and often actually prepared, but never published works. They include: Materials for the History, Ethnography, &c of the Americans-40 books begun in 1820; Vocabularies of the Ancient and Modern Languages of Both Americas—4 books begun in 1824; Comparative Geography and Ethnography of Ancient and Modern America—5 books begun in 1824— Ancient Monuments of North and South America—3 books and 200 plans, 1822; Tellus, or the Primitive History of the Earth and Mankind—30 books begun in 1821; Synglosson, or Compared Examination of all Languages and Nations-6 books begun in 1825; Iconographical Illustrations of all my Historical Works and Travels-in 10 cartons, begun in 1816. These were apparently his source books from which he later planned to extract data for publication. One suspects that most specialists in the above fields would evaluate Rafinesque's works very much as the biological ones are judged by competent botanists and zoologists-mostly bad. However, no matter whether he was right or wrong in his anthropological, ethnological, and philological speculations, he was the first to discern from the meager published account (1822) that the Mayan system of ideographs was partly alphabetic.

# Diverse Publication Fields Exploited by Rafinesque

Sane, or at times even insane, psychotic or merely neurotic, Rafinesque in his unbridled publishing activities raised myriads of problems in nomenclature in both botany and zoology for his successors to struggle with. But let not the biologists think that his efforts were confined to their field. His range of interest in publication of his own writings was boundless. Entirely outside of his keen biological interests he became intrigued with philology, archeology and history, but one scarcely has to be a trained philologist, archeologist or historian to realize that his conclusions in these fields are fanciful in the extreme, and as erratic or even more erratic than was much of his published biological work. We who are interested in botany should realize that the inexhaustible energy of Rafinesque and the inner force that impelled him, caused his encyclopedic but ill-ordered mind to cover a vast array of subjects, including such diverse ones as agronomy, agriculture, algology, American antiquities, archeology, architecture, art, astronomy, banking, bibliography, biography, botany, chemistry, chronology, classification, climate, commerce, comparative philology, conchology, economics, education, entomology, ethics, exploration, fiction, finance, fine arts, fire proof construction, freemasonry, geography, geology, gypsies, herpetology, history, horticulture, hydrography, ichthyology, immunization (vaccination), inventions, legislation, literature, mammalogy, manufacturing, materia medica, mathematics, medicine, metaphysics, meteorology, methodology, mineralogy, mining, morals, mycology, nomenclature, ornithology, paleontology, patents, pharmacy, philosophy, phrenology, physical geography, physics, physiology, plant pathology, poetry (author of), political economy, quarantine and fumigation, savings banks, statistics, surgery, travel, veterinary science, and general zoology. One judges that he felt entirely competent to discuss all of these subjects with authority—an authority that neither his contemporaries nor successors accepted.

# RAFINESQUE'S WORK IN DESCRIPTIVE ZOOLOGY

Not being a zoologist I make no attempt to evaluate Rafinesque's work in this field. It may be better or it may be worse than his numerous ventures into his favorite subject, botany. He was particularly interested in ichthyology and conchology but the fields of mammalogy, ornithology, entomology, herpetology, etc. received some attention. One suspects that the percentage of validity of his new genera and new species of American fresh water fishes and bivalves is relatively high, but for the simple reason that he was the first systematist to give much attention to the representatives of these groups as they occurred in the Ohio Valley. This was a new field not very much complicated by any descriptive work prosecuted by Rafinesque's predecessors and one in which naturally a high percentage of the forms which he observed, named, and characterized were actually new. Had he been preceded by other competent individuals, as was the case in botany, the results might have been very different. One suspects that Rafinesque's ichthyological and conchological work rates rather better than what he did in the field of botany.

Yet the fate of his descriptive zoological work was very similar to that of his ill-conceived projects in botany. His zoological successors in general ignored the genera and species that he named and described, and redescribed very many of the Rafinesque entities de novo under other names. Thus because of the priority rule the zoologists are in the same dilemma as the botanists. As in botany, so also in zoology, many of the Rafinesque names are now accepted as the valid ones for this or that entity in the specialized fields of conchology, ichthyology, herpetology, ornithology, and mammalogy, and many of the names originated by Rafinesque's successors are relegated to synonymy.

# Comparisons of Rafinesque's Work with That of Certain Other Botanists

Rafinesque may be justly censured for the inordinate number of new genera and new species that he proposed, but is he so much more to be condemned than certain more modern botanists? I have noted elsewhere that he was responsible for about 2700 new generic names, 335 new subgeneric names, 6700 new binomials, and 900 new trinomials and that a very small percentage of these have been accepted by his successors. At least, as to genera, in spite of his usually very short and often wholly unsatisfactory descriptions, he usually did indicate the type on which his concept of the group was based, and from an examination of his characterizations definite conclusions may be reached. How much better would Rafinesque's reputation have been had he limited his field and concentrated on preparing detailed and accurate descriptions of fewer entities! Again how unfortunate it is that he did not illustrate a reasonable percentage of his assumed new forms, for Rafinesque had a certain artistic ability and could make very excellent drawings.

# Michel Gandoger (1850-1926)

Before we censure Rafinesque too severely for his manifest shortcomings it is well that we consider some more modern cases of illogical conclusions and too liberal recognition of both genera and species. Michel Gandoger's Flora Europae, 1883-91, twenty-seven volumes in thirteen, contains some thousands of new binomials, but the work is of such a nature that no botanist has ever recognized his new names; they are not included in Index Kewensis. Manifestly he was dealing essentially with microspecies. Gandoger's work was actually eliminated from consideration by official action of one of the International Botanical Congresses, a start on a sort of botanical index expurgatorius. Such extreme action has been taken in only a very few cases, although at times individuals who have to deal with the idiosyncrasies of this or that botanist, including Rafinesque, might devoutly wish that similar action could be taken in other cases. Presumably one of the reasons for eliminating Gandoger's work was that the publication was in lithographed handwriting and further the numerous new binomials appeared only in a key; but certainly lithographed handwriting is as much "publication" as the modern mimeograph or even lithoprint reproduction of typewritten copy. Wallich's famous "Catalogue" [List] of 1828-49 is lithographed handwriting. Most of the very numerous new names contained therein are nomina nuda (there are no descriptions); and yet the new ones that appeared in it are included in Index Kewensis, and most authors still cite this work as the place of origin of the new names involved. However, this work was prepared by responsible botanists, not by an irresponsible one like Gandoger.

# HECTOR LÉVEILLÉ (1863-1918)

Between 1894 and 1918, Hector Léveillé named as new and very inadequately described perhaps 3000 new species of plants and a few new genera from Japan, Korea, China, and Hawaii. A very high percentage of these can be placed only by actually examining his extant type specimens partly because of his utterly inadequate descriptions, partly because of the extraordinary number of errors which he made in ascribing his "new species" to the wrong genera. One judges from the critical work of Rehder,38 who examined and reported on the Léveillé types of woody plants, that not over ten percent of Léveillé's "new species" that he named and described were actually "new" at the time they were proposed. My estimate of ten percent is based on a consideration of about 1300 Léveillé species of woody plants from eastern Asia; numerous herbaceous species still remain to be critically studied. Doctor Rock, 39 who examined Léveille's Hawaiian types, reduced nearly all of the supposed new Hawaiian species to synonymy.

What is even worse, Léveillé, unlike Rafinesque, had very hazy ideas of botanical relationships and accordingly a high percentage of his assumed new species were placed in the wrong genus and in many cases even in the wrong family. Thus, various old and well known species of Ilex (Aquifoliaceae) were described as new in Celastrus, Callicarpa, Embelia, Maesa, Myrsine, and Diospyros (in the Celastraceae, Verbenaceae, Myrsinaceae, and Ebenaceae); well known species of Celastrus were renamed and redescribed as new species of Saurauia, Embelia, Erythrospermum, and Berberis (in the Actinidiaceae, Myrsinaceae, Flacourtiaceae, Berberidaceae); and ascribed to various genera of the Verbenaceae, and named and described as new species were representatives of Ilex, Dichroa, Colquhounia, Tacca, Viburnum, Meliosma, Hydrangea, and Buddleja, in seven different natural families of plants (the Aqui-

<sup>88</sup> Rehder, A. Notes on the Ligneous Plants Described by H. Léveillé From Eastern Asia. Jour. Arnold Arb. 10: 108-232. 1929 to 18: 273-321. 1937.

<sup>89</sup> Rock, J. F. Revisio plantarum Hawaiiensium, a Léveillé descriptarum. Repert. Sp. Nov. 13: 352-361. 1914.

foliaceae, Saxifragaceae, Labiatae, Taccaceae, Caprifoliaceae, Sabiaceae and Loganiaceae). Only one of these natural families is even remotely related to the Verbenaceae in which Léveillé erroneously placed these "new species," and in one case his new species of Clerodendron was not even a dicotyledonous plant, but a representative of Tacca of the monocotyledonous family Taccaceae!

The Léveillé record is, of course, a very bad one. The small percentage of his "new species" that survive were new largely by accident. The surprising thing is, that, considering the time that the collections were made and the parts of China from which most of his material came, his percentage of valid species is so small. If Rafinesque had had as little knowledge of and feeling for natural relationships as manifestly was the case with Léveillé, we would indeed be in a sad situation in reference to an interpretation of the former's genera and species, with his herbarium destroyed. It is no wonder that one responsible botanist has suggested that Léveillé's published work be officially eliminated and his herbarium destroyed! This Léveillé case is a beautiful illustration of irresponsible publication that working botanists have to contend with, and further an equally beautiful demonstration of the manifest fact that it is the easiest thing in the world to name and describe a new genus or a new species; but it is not so simple or easy to place the entity in its proper major or minor group in appropriate association with allied forms, or even to determine whether or not such and such a form that is suspected to be new had not been named and described by some earlier botanist. Here Léveillé, a modern author, out-Rafinesqued Rafinesque, and justly is much more worthy of severe criticism than the latter much maligned individual.

#### CERTAIN GENERAL COMPARISONS

It is a trite saying that comparisons are odious; they frequently are. Moreover it is very difficult to compare the work of one individual botanist with that of another. We all realize that in the history of botany there have been certain outstanding individuals whose work shaped our science as it now exists. A Linnaeus, a Willdenow, a Jussieu, a Robert Brown, a DeCandolle, a Bentham, a Hooker, a Gray, or an Engler—they all made mistakes, but their percentages of error were small and their names are and always will be honored among botanists. Manifestly neither the work of Rafinesque, nor Gandoger, nor Léveillé can be compared with that of men such as those listed above except to the utter disparagement of the last three erratic individuals; as between Léveillé and Rafinesque, however, my conclusion is that the work of the former (1894-1918) was very much worse than that of the latter (1803-1840).

#### WIDE VERSUS NARROW GENERIC CONCEPTS

Styles change in concepts as to generic limits, and these changes effect nomenclature very seriously. Con-

sider Krause's treatment, 40 in the first decade of the present century, of all the European species of Umbelliferae and Cruciferae. He reduced all of the species in 39 genera in the former family to *Selinium* with 86 new binomials; and in the latter family all of the species in 66 genera to the genus *Crucifera* with 168 new binomials.

Contrast with this Van Tieghem's slightly earlier treatment of the Loranthaceae. The Bentham and Hooker concept in 1880 was eight genera, which Van Tieghem increased to 133. In 1897 Engler, Nat. Pflanzenfam. Nachtr., Teil II-IV, 124-137, considering the same family, adopted a very conservative position, recognizing only 13 genera. But in 1933 Danser 41 took a position intermediate between that of Van Tieghem and of Engler, by recognizing 51 genera, for the Old World representatives of this subfamily. He reduced a great many of Van Tieghem's genera to synonymy, but 12 of the 51 that he did recognize were proposed by him as new. All of these different interpretations of generic limits involved the publication of a great many new binomials. One suspects that the next student of this complex group may not agree with any of his predecessors.

In the period 1921 to 1935 N. E. Brown proposed about 75 new generic names as segregates from Mesembryanthemum, while Schwantes, Bolus and others proposed many more. Britton and Rose in their treatment of the Cactaceae (1919-1923), by subdividing the larger genera erected 37 new ones, and later Britton and his associates in treating the North American Caesalpinoideae and Mimosoideae, in addition to reinstating many genera originally proposed by Rafinesque, erected 51 new ones. One suspects modern specialists in the Gramineae, Orchidaceae, Rubiaceae and Acanthaceae of, in general, adopting the policy of narrow rather than wide generic concepts. Clearly Krause, representing one extreme, cannot be right in contrast to the other extremes as represented by Van Tieghem, Danser, N. E. Brown, Schwantes, Bolus, Britton, and others. The fact is that generic limits depend to a very considerable degree on the personal opinion of this or that specialist, and probably this will always be the case. The "lumpers," conservatives if you will, without going to the extreme of a Krause, will adopt the wider generic concept and the "splitters" will continue to divide and subdivide the larger and admittedly more or less collective genera. This is a terrible burden on nomenclature and synonymy, for it involves the publication of many hundreds of new names each year. These two words "lumpers" and "splitters" are, as L. H. Bailey notes, a discredit to systematic botany, yet these two words concisely indicate a radical difference of opinion, or of concept, as to delimitation of both genera and species. The extremists

<sup>40</sup> Krause, E. H. L. in Sturm, J. Flora von Deutschsland, ed. 2, 6: 49-169. 1902; 12: 17-163. 1904.

of both schools, but particularly the modern disciples of Rafinesque, with Rafinesque, are responsible to a high degree for the low esteem in which systematic botany is held today.

#### WIDE VERSUS NARROW SPECIES CONCEPTS

Rafinesque believed that there was an unlimited number of distinct species. He did not hesitate to name and describe new ones on the slightest pretext. He was manifestly influenced by his expressed belief (after Adanson) that new species were constantly being developed in nature. One has only to scan the entries in this index to realize that in subdividing genera he favored certain natural groups, such as the Cyperaceae, Liliaceae, Orchidaceae, Salicaceae, Saxifragaceae, Rosaceae, Leguminosae, Umbelliferae, Convolvulaceae, Labiatae, Bignoniaceae, Scrophulariaceae, Compositae, and others. Believing in narrow generic limits he naturally accepted a correspondingly narrow species concept. As in proposing numerous genera he favored certain groups (families), so with species he favored certain genera such as Clintonia, Trillium, Tradescantia, Morus, Spiraea, Citrus, Vitis, Gossypium, Dodecatheon and others; and one notes that in some cases where he recognized a rather extraordinary number of new species from limited regions, modern botanists thoroughly familiar with the same regions have been able to distinguish only two or three species, and these often not very sharply differentiated.

Within a single genus there is often a tendency for individual botanists to take a most extreme view as to the narrow limits of species, even as did Rafinesque. Thus betwen 1885 and 1896 E. L. Greene proposed and described about 100 new species of Eschscholzia, chiefly from California; but the authors of the two modern floras of the region, Jepson in 1922 and Abrams in 1944, both widely familiar with field conditions, recognized only seven species, the former also admitting six varieties, the latter three only. Again between the years 1893 and 1913 Greene named and described about 70 new species of Apocynum from North America; but Woodson in his critical consideration of the genus in 1938 recognized but seven species (of which only three were Greene's) and twelve varieties. Witness the minute species segregations of Sargent and others in Crataegus 42 (and incidentally their wholesale later re-

<sup>42</sup> See Palmer, E. J., Brittonia 5:471-490. 1946, where inter alia he reduces to Crataegus crusgalli Linn., 19 species; to C. intricata Sarg., 17; to C. macrosperma Ashe and varieties, 70; to C. populnea Ashe, 28; and to C. succulenta Link, and varieties, 64; nearly 200 optimistically proposed "new species," reduced to five only! Approximately 600 species of Crataegus from Eastern North America described within the present century have been reduced to synonymy, or to varietal status. Thus the mortality of recently proposed and described new species in this one genus as to percentage is as high or higher than the Rafinesque record in other genera. And it is interesting to note that these reductions have been made "without benefit of clergy" as it were; i.e., without the chromosome counts and other fine techniques that are now in vogue among the geneticists.

<sup>41</sup> Danser, B. H. A New System for the Genera of the Loranthaceae Loranthoideae With a Nomenclator for the Old World Species of This Subfamily. Verh. Akad. Wetensch, Amsterd. II. 29(6): 1-128. 1933.

ductions), by L. H. Bailey in Rubus, by Greene in Viola, and by Small in Iris.

Another case worthy of mention is that of Burgess on Biotian Asters, Mem. Torr. Bot. Club 13 (2): i-xv. 1-419. pl. 1-13. fig. 1-103. 1906. Within a limited but rather strongly marked group, he recognized, on the basis of long continued field and herbarium studies, a total of 84 species, 58 of which were first characterized by him in 1906. The very fact that his successors have ignored most of his conclusions, and have recognized only a very few species within the group and area covered, leads a nonspecialist like myself to conclude that here was a case where an able investigator lost himself in a maze of details, and to a degree actually out-Rafinesqued Rafinesque in an attempt to segregate and define species.

But this wholesale describing of scores of very narrowly defined species is by no means confined to American botanists. Thus in the work of various European specialists the same tendency in Rubus and Rosa is evident. The detailed work of Folen, Zahn, Notø, Omang, Dahlstedt, Johansson, and others in *Hieracium*, and in the apomictic group Taraxacum the labors of Lindberg, Palmgren, Dahlstedt, and Haglund, are worthy of note. Handel-Mazzetti, whose species concept was broad, monographed the genus Taraxacum in 1907, recognizing for the entire world only 57 species. Yet from what is supposed to be, from a botanical standpoint, the better known parts of the world, and largely from Europe, perhaps 1100 new species of the genus have been named and described since 1907. Clearly Handel-Mazzetti's species concept in Taraxacum of 1907 was radically different from that of his successors. One may believe that when the next "lumper" considers the genus, the mortality of these recently proposed microspecies will be tremendous and the synonymy accordingly something extraordinary.

Thus many hundreds of new species have been described from European material within the present century in the genera above mentioned as well as in others. In accordance with the criteria used by the modern exponents of microspecies doubtless many more will be named and described in the future; clearly it should not be thought that the first four decades of the present century were in any measure extraordinary in respect to the subdivision of genera and the setting up of very narrowly defined species.

#### THE PERSONAL OPINION FACTOR

One concludes that as with generic limits, so with those of species, the personal opinion factor is an important one. Doubtless here there always will be differences of opinion, but somehow, sometime, we may arrive at a reasonable differentiation as between macrospecies and microspecies—for clearly in *Crataegus, Rubus, Rosa, Hieracium,* and *Taraxacum,* modern investigators of well known floras such as the long and intensively studied ones of Europe and of eastern North America, often deal largely with microspecies. I merely conclude

that before we throw too many stones at Rafinesque, no matter how vexed we may be with his erratic work, we should consider what other botanists have done and are still doing. I judge that even a widely experienced specialist would have very great difficulties in identifying a European Hieracium or Taraxacum, Rubus or Rosa species or an American Crataegus or Rubus species from the description alone, for eventually in descriptive botanical work we reach a point where words fail to indicate the differences that specialists see or believe that they see. If the specialist is puzzled, what is the situation of the amateur or of the casual individual untrained in botany who needs to know the name of this or that plant species?

We condemn a Rafinesque, a Gandoger, or a Léveillé for careless and irresponsible work. We do not, however, question their motives no matter how severely we may condemn their methods or their conclusions. We may differ honestly from the conclusions of a Krause, Brown, Schwantes, Greene, Britton, Dahlstedt, Lindberg or any other specialist who believes in exceedingly broad or in exceedingly narrow limits of genera and species; but this difference of opinion does not blind us to the excellent qualities of these men as botanists, qualities, as to detail, that are lacking in the work of what we may call the botanical pariahs, the Rafinesques, Gandogers, Léveillés and their ilk.

#### RAFINESQUE'S IDEAS ON EVOLUTION

Rafinesque's expressed ideas on evolution of 1832 (reflected from Adanson, 1763) are epitomized in the two following quoted passages: 48

"The truth is that Species and perhaps Genera also, are forming in organized beings by gradual deviations of shapes, forms and organs, taking place in the lapse of time," and that "every variety is a deviation which becomes a Sp. as soon as it is permanent by reproduction." This was Rafinesque's law of perpetual mutability taken over from Adanson (1763). How the new forms may arise and become more or less permanently fixed may be subject to varying interpretations. Rafinesque believed that there was a tendency to deviations and mutations by gradual steps at remote irregular periods. He states, Flora Telluriana 1: 13-14, 1836 [1837]:

"The periods of these deviations are doubtful, much fluctuating and various in length or existence. But we may assume as an average 30 to 100 years for the deviating or splitting range of specific deviation and 500 to 1000 years for the Generic deviation; altho' their real permanence is much longer. \* \* \* Therefore many of our actual or newly described Genera and Species, may be of recent origine, and all may have sprung at the last rinovation or cataclysm of this Globe, from a lesser number of original types \* \* \* ."

Rafinesque has not been given much credit for his pioneer views on evolution, and I have noticed this else-

<sup>48</sup> Rafinesque, C. S. Extract of a Letter to Dr. J. Torrey of New York, dated 1st Dec. 1832. Herb. Raf. 11-12. 1833. Reproduced by E. D. Merrill, Proc. Am. Philos. Soc. 86: 74. 1942.

where. These ideas did not originate with him; he took them from Adanson, Familles des plantes 1 (1763). One has only to compare Rafinesque's statements with those of Adanson, vol. 1, p. cxiii "Les Espèces chanjent de nature," p. cxiv "Espèces chanjent suivant les Métodes," and supplementary statements, p. clxi, clxviii. Adanson's entire discussion is worthy of more consideration than has generally been accorded to it in the past by those interested in the development of ideas on evolution. It is pertinent to note here Rafinesque's own statement as to his sources of information, Fl. Tellur. 1: 41. 1836 [1837], where he credits Adanson with being the source of his ideas regarding the origin of species.

"Adanson . . . was like Linneus, Necker and myself (in fact like all acute observers) a strenuous supporter of the doctrine that Species were unlimited, and increasing by the natural process of semination, deviation, variation, hybridization &c. Whence he concluded that we could hardly ascertain the primitive types of species, that many known to ancient Botanists were lost or no longer found, while new ones were evolved in mountains, groves, fields, and gardens."

#### FRANKNESS IN CRITICISM

Many botanists are individualists. They develop their own ideas as to what should constitute a genus or a species. They often express very frank opinions of the work of this or that author and in no uncertain terms as did Underwood, Pop. Sci. Monthly 70: 511-512. 1907, regarding Rafinesque: "In his crazy notions regarding the multiplicity of species, Rafinesque has no equals, a few weakling imitators, and only one real successor." By the last phrase Dr. E. L. Greene was meant, and if one wishes to find a caustic criticism of the latter, here it is from the pen of Katherine Brandegee, Zoe 4: 420. 1894: "A year or two before his death Dr. Gray dubbed the author [E. L. Greene] 'The new Rafinesque.' In this he was unjust to Rafinesque who was at once a great egoist, a little mad, and somewhat of a genius. Prof. Greene lacks the genius." This is considerably more caustic than Barnhart's mild criticism of Greene's practice of proposing and describing very numerous "new species," often, it is feared, no more distinct than were the corresponding brain children of Rafinesque when he (Barnhart) characterized the Greenian binomials not as synonyms but as chloronyms. Maybe Kipling was right when he expressed the idea that the female of the species was more deadly than the male.

It was only natural that Rafinesque should have been the subject of severe criticism on the part of his contemporaries because of the very nature of his work, in general unfinished, unpolished, illogical, inaccurate, incomplete, and utterly at variance with the botanical standards of the times. But Rafinesque was not an individual who hid his light under a bushel and he frankly expressed his opinion of those with whom he disagreed. Thus, as to Pursh, Am. Monthly Mag. Crit. Rev. 4:191. 1819, regarding Drosera filiformis Raf. (1808) versus D. filiformis Pursh (1814): "Mr. Rafinesque \* \* \* discovered Drosera filiformis, and de-

scribed it first, instead of Pursh, who has pilfered from him the plant and name"—or somewhat more baldly Loudon's Gard. Mag. 8:246, 1832: "Pursh, in 1814, stole this plant from me." He objected to the generic names Wisteria Nutt.: "Dr. Wistar being neither a botanist nor a naturalist did not deserve the dedication of a genus," Am. Monthly Mag. Crit. Rev. 4: 194. 1819; to Shepherdia Nutt. and Mahonia Nutt. because the gardeners Shep[h]erd and Macmahon "did not deserve the dedication of a genus." In his discussion of Bartonia Pursh he correctly insisted that the name should be retained for the first group to which it was applied, Bartonia Willd., stating, op. cit. 193, "whoever shall not admit this can only act against his own conviction of right and must be influenced by some secret motives." As to some of Lindley's work, Fl. Tellur. 3:5. 1836 [1837], he states, inter alia:

"Lindley seldom quotes me, and only by ricochet as the French say, not knowing and not caring for my works or labors. \* \* \* When he shall receive this work and be astonished at my 2000 rectified Genera, he may if he likes probably treat me even worse than Spach; but although he may deny my New Genera, he cannot say that I make them on leaves, nor stipules, nor sperm-pollen, nor inside of the seeds or eggs of plants. Thus they cannot involve any one in perplexity, and are all conspicuous. Nor shall he find me adopting any barbarous or compound exploded name, such as Cotone-Aster (my Cotonea), nor Amelanchier (my Amelancus); nor Mus Cari, the Cari Mouse, else Musca Ri, the Ri fly; for my genus Eubotrys &c."

Lindley did not propose these criticized names, he merely accepted them, as all botanists, other than Rafinesque, have done.

These opinions of other botanists are widely scattered in Rafinesque's publications, but his criticisms are usually mild and for the most part well taken. The general subject of Rafinesque's published opinions of others and, incidentally of himself as well, would be worthy of a special treatise. As to his own qualifications he had no inhibitions, note op. cit. 5-7, where he states:

"Whatever he [Lindley] or others may think or say of my labors, they cannot find me inconsistent, nor in contradiction. Within my 40 years of botanical investigations I have always been consistent in deeming that Genera and Species ought to be reformed till they become perfect, and unexceptionable. Nor can I be accused of forming Genera on minute or invisible characters, or to give any bad names to my new or reformed Genera."

"Now by the absurd contending whims of Botanists it is become often needful to provide two names for a New Genus, for fear one should be already employed—or if you wish to secure a good name, it must be repeated till adopted, for fear that some jealous exploding Botanists may annul it by not deeming the first application given to a proper Generic group. When correct principles shall always guide Botanists, this will be avoided and rectified."

Confidence in one's ability to accomplish a certain task is an excellent trait if the individual realizes, as Rafinesque apparently never did, that there are certain limitations involved. Thus, while Rafinesque was absolutely confident in the clarity of his descriptions, insist-

ing that "they cannot involve any one in perplexity and [that the characters] are all conspicuous" no one who has endeavored to interpret an inadequately characterized Rafinesque genus or species on the basis of the descriptive data alone could possibly agree with him.

#### Conflicts of Terms

Those who delight in arguing for or against the validity of this or that proposed genus or species are not always consistent, but inconsistency seems to be a characteristic of taxonomic work. There is nothing of really great importance in either the generic or the specific name, so that the discussions usually become purely academic; but it must be admitted that at times the contenders may become sarcastic or even caustic. As to the genus and the generic name, the actual limits of a proposed group may be narrow or broad, and later botanists may adopt an interpretation utterly at variance with that of the individual who originally proposed the name. Here personal opinion plays an important part, and we cannot expect that all individuals will think exactly alike. As to the species, what we mean by that term is really a subjective concept rather than an objective reality, for it is a generally accepted dictum that species, as such, do not exist in nature. All so-called species vary much or little, no two specimens representing any accepted one being exactly alike in all particulars. Maybe some modernists who claim that the term species should be abandoned as being out-dated are correct in their contention that some substitute word such as phenotype or morph should be accepted, words that indicate nothing more than visible differences between organisms. One might suspect that such terms might be proper for the myriads of so-called species (microspecies) that modern specialists recognize in such genera as Hieracium, Taraxacum, Rubus, Rosa, Crataegus, and numerous others; that there are visible differences is admitted, but does a very minute visible difference in what, after all, are but minor characters, actually warrant the proposal of a binomial for such a variant? Even if one elected to use the term phenotype or morph, if one wished to compare one microspecies with another, each would have to be designated by a name, so after all, what would be gained by abandoning the old term for a new one? Better to return to the Linnaean principles as outlined in his Philosophica botanica.

In such a group as *Taraxacum* we may accept the dictum that there will always be differences of opinion as to what constitutes a species, as between Handel-Mazzetti, on the one hand, and a Dahlstedt, a Palmgren, a Haglund, a Lindberg, or a Koidzumi, or any other modern specialist who believes in characterizing and naming microspecies. The latter in good faith have proposed, and maintain, myriads of species distinguished by very minute differential characters as opposed to the conservative attitude of Handel-Mazzetti who believed in macrospecies and admitted for the entire genus only a relatively few species. We may agree with

Handel-Mazzetti, for his interpretation is certainly the more practicable one, but even in so agreeing we do not condemn the really critical work of his successors who differ from him most radically as to specific limits; nor do we call the ideas of the latter Rafinesquian, for unlike Rafinesque to their credit they did make very intensive studies and prepared and published very critical descriptions from which their contemporaries and successors can secure some definite idea of what was intended by this or that name. Such factors are conspicuous by their absence in the diffuse and careless work of Rafinesque.

# RAFINESQUE'S PERSONAL OPINION OF HIS OWN QUALIFICATIONS

Here it seems to be pertinent to the subject under discussion to quote certain passages from Rafinesque's published works which provide a very clear idea of his conception of his own ability and qualifications; there were no limitations. Thus in 1821 in a letter written to Bory St. Vincent that Rafinesque actually published in his suppressed *Western Minerva* 1: 71-74. 1821, where he pays his respects to his fellow townsmen of Lexington, Kentucky, as:

"A set of unfortunate individuals, who have two eyes; but cannot see; their minds are deprived of the sense of perception; they are astonished and amazed at my discoveries, are inclined to put them in doubt and even to scoff at them . . . Our catfishes, eels, shads, sturgeons &c. are for them mere fish to fill their stomach! and moreover they are all of European breed, and were carried here by Noah's flood direct from the Thames, the Seine and the Rhine!—I let them rail to their heart's content, and I laugh at them . . . It is only in Europe that my labors and discoveries may be fully appreciated: here I am like Bacon and Galileo, somewhat ahead of my age and my neighbors."

Even more extraordinary than this are two later statements both written before 1836. Regarding his biological work he said, New Flora of North America 4: 6. 1836 [1838]:

"As I think that I am gifted with a peculiar sharp sagacity in discriminating Genera and Species of Plants, and Animals, it behoves me to use it to rectify these objects and the sciences relating thereto.—it is what I have often done, am now doing, and will continue to do as long as I live, not being prevented by the sneer or neglect of any one whom I consider less sagacious than myself, who cannot discriminate between the most conspicuous characters blended by the Linneists or modern Blenders and Schufflers."

Another extraordinary statement illustrating the exceedingly egotistical attitude of this strange enthusiast—misguided genius, if you will—is that on the last page of his *Life of Travels* 148. 1836:

"Versatility of talents and of professions, is not uncommon in America; but those which I have exhibited in these few pages, may appear to exceed belief; and yet it is a positive fact that in knowledge I have been a Botanist, Naturalist, Geologist, Geographer, Historian, Poet, Philosopher, Philologist, Economist, Philantropist . . . By profession a Traveller, Merchant, Manufacturer, Collector, Improver, Professor, Teacher, Surveyor, Draftsman, Architect, Engineer, Pulmist, Author, Editor, Bookseller, Librarian, Secretary . . and I hardly

know myself what I may not become as yet: since whenever I apply myself to any thing, which I like, I never fail to succeed if depending on me alone, unless impeded and prevented by lack of means, or the hostility of the foes of mankind."

# A Judicious Evaluation of Rafinesque

Doctor G. Brown Goode's evaluation of Rafinesque's early work while he resided in Palermo, Sicily, and the effect this early work had on the latter's future life is particularly worthy of note. This explains concisely how the cement had set, as it were, before Rafinesque returned to the United States in 1815, and why, in general, he failed to attain his objectives. This appears in Science II. 1:384-387. 1895, in Goode's appreciative review of Richard F. Call's Life and Writings of Constantine Samuel Rafinesque i-xii. 1-227, illus. 1895. He states, regarding Rafinesque:

"A man whose brilliant intellect, eccentric character and unhappy fate will always cause his career to be looked upon with interest, and whose nervous and appalling industry has been the cause of a myriad of perplexities to students of the nomenclature of plants and animals in Europe as well as in America. . . . The roving habit of mind which soon became a part of his nature led him into a mental vagabondage that influenced his career even more than the lack of a permanent place of abode. His precocious mind, unguided and undisciplined, wandered at will over the entire field of books and nature, and by the time he had reached the age of nineteen he had formed his own character and equipped himself for the career which lay before him . . . Lacking . . . guidance, however, he was by no means fitted to enter upon a scientific career in a country like the United States, so when . . . he crossed the Atlantic [in 1815] he brought with him the germs of failure and bitter disappointment . . . His fatal tendency to 'scatter' was already apparent, and in the work which he did for the 'Specchio' [during his residence in Palermo] all the weaknesses of his subsequent career were foreshadowed."

Here is a careful and judicious evaluation of Rafinesque which clearly explains why that erratic, even if at times brilliant, individual failed. One does not have to examine Rafinesque's very numerous published works in detail to realize his weaknesses; their faults are evident on every page. The next ebullient writer who seeks to do a literary task with Rafinesque as a subject should really read and digest some of the latter's works before he reaches untenable conclusions.

#### ERRONEOUS EVALUATIONS

A number of individuals have praised Rafinesque's scientific work, but more have criticized his activities in this field, the criticisms sometimes very acute, but no sharper than Rafinesque's own aspersions on the work of his contemporaries such as Pursh, Nuttall, Eaton, Featherstonehaugh, and others. Doubtless some of Rafinesque's work was worthy of praise, but in my judgment only a very small percentage of his tremendous output is to be commended. In recent years with a marked increase in interest in Rafinesque and his work, a number of appreciations have appeared, some as parts of books, others in the form of reviews of certain reissues of Rafinesque publications such as

his Life of Travels. Some of these appreciations are excellent but others are so wide of the mark as to be almost ludicrous. In this class one must place Peattie's 44 strange hallucinations "as expressed in smooth, literary style with the jinglingly festive words in place," as one correspondent has expressed it. Here is a case of a trained botanist and incidentally one who in 1927 published a technical consideration of certain American species of Trillium, who in his ambition to write a readable book-creative writing if you will-curiously misinterpreted the significance of Rafinesque's work. Trillium was one of the genera that Rafinesque corrupted by inadequately describing an inordinate number of new forms (34 species and 67 varieties), a considerable number from the area that Peattie covered, and yet of which he accounted for only four.

Properly to treat such misguided conclusions one needs the pen of a Fernald; and here fortunately Fernald <sup>45</sup> has paid his respects to this modern Sir Galahad, from whose paper of 1944 the following passages are quoted:

"Nevertheless, although (his p. xxi) acknowledging what any clear thinker quickly sees, that 'Rafinesque's genius is debatable in the extreme,' that 'unbalanced . . . he may have been,' (his p. 166) and (his p. 263) that 'A Dr. Faustus, dangerously experimenting, tempting the rack or devil-ridden madness, would certainly correspond in a crude way to Rafinesque,' one of the few monographers of Trillium, Mr. Donald Culross Peattie, becomes ebullient over this erratic and 'unbalanced' man, whom, nevertheless, he considers 'one of the most prodigious and prophetic scientists of the century 1750 to 1850' (his p. 261)—the century, to mention a few botanists only, of Haller, Linnaeus, Lamarck, Humboldt, Robert Brown, De Candolle, Darwin, young Gray and his friend, young Joseph Hooker, and countless others for whom no one has the 'nerve' to apologize and who were respected by everyone for sanity, clarity and sound scholarship. Peattie, over-enthusiastic about the 'prophetic' nature of Rafinesque's unbalanced work, wrote (Green Laurels, p. 266): 'If the rules of priority were strictly and justly applied, Rafinesque would be found to have antedated a large part of the work . . . in botany of Gray and De Candolle.' Whew! Rafinesque himself might well have written such a sentence; his introverted brain (likewise that of Marcus Jones) frequently brought forth just such statements.

"But, returning to *Trillium*. One of the few monographic studies of *Trillium* is that of Peattie, Trillium in North and South Carolina, in Journ. Elisha Mitchell Soc. xlii. 192-206 (1927) and, as an outgrowth of this, the treatment of the genus in Small's Manual (1933). In the former treatment we read (p. 193): 'Following Asa Gray, who eschewed anything from Rafinesque's pen, Sereno Watson 1... reduced to synonymy

44 Peattie, Donald Culross. Green Laurels. The Lives and Achievements of the Great Naturalists. i-xxiii. 1-368, illus. 1936.

45 Fernald, M. L. Overlooked Species, Transfers and Novelties in the Flora of Eastern North America. Rhodora 46: 1-21, 32-57, pl. 807-816. 1944. Reprint Contr. Gray Herb. 150 (p. 1-21)

(p. 1-21).

1 "Peattie seems to overlook the patent fact that both Asa Gray and his friend Alphonse De Candolle (dim lights, one gathers, as compared with his hero) regularly took up Rafinesque's genera and species when they were definite and had priority: Peltandra Raf., including P. undulata and P. alba Raf.; Clintonia Raf., with the species C. borealis Raf.; Hexalectris Raf., with the species H. aphylla Raf.; Adlumia Raf., with the species A. cirrhosa Raf.; and so on with scores of other

or varietal rank the greater part of Rafinesque's . . . names of Trillium. It was not until Small showed the limited nature of T. sessile L. and set off T. Underwoodii and later T. Hugeri that our knowledge of the genus drifted out of the doldrums into which workers like Watson, whose great genius and just fame need no defense, with almost no field knowledge, had put us." In view of Peattie's evaluation of the work of Rafinesque it is, consequently, amazing that he so consistently ignored his 34 species and 67 varieties of Trillium, many of them described from the Carolinas or other Southern States, and that he failed to welcome the opportunity to displace T. Hugeri and T. Underwoodii of Small by Rafinesque's names of 1840 and 1830 respectively. If anyone has 'eschewed anything from Rafinesque' it is the author of a recent monograph who has ignored all but 4 (scarcely 4 per cent) of Rafinesque's published names in the genus-these all reduced by the admirer of that 'prophet' to synonymy."

In reference to Peattie's utterly unfounded statement that were "the rules of priority strictly and justly applied, Rafinesque would be found to have antedated a large part of the work \* \* \* in botany of Gray and De Candolle," the reader is referred to page 20 where a tabulation appears of the Rafinesque genera that would, on the basis of strict priority, replace those of other authors. Of all the numerous genera proposed by Asa Gray and by the first two De Candolles, Gray and the De Candolles would lose to Rafinesque about ten names, an insignificant percentage (as to genera). Both Gray and the De Candolles accepted many of Rafinesque's generic names. They certainly had no undue "prejudice" against him. The percentages as to species are scarcely higher. I would add to Fernald's last statement in his quoted footnote that most authors of serious books try to be sure of their facts, and presumably Green Laurels was intended as a serious contribution to biological literature; but parts of the treatment of Rafinesque are more fictional than factual. One regrets to see unsupported and unsupportable statements included in a book of the type of the one above considered for it savors too much of actual prostitution of facts to the production of an entertainingly readable book. In garden literature it may be already established that Peattie's evaluation of Rafinesque is correct: "Amongst all the naturalists who have ever worked on the American continent Rafinesque is the only one who might clearly be called a titan"-see Bull. Gard. Club Am. IX. 12: 16. 1945; but any one only reasonably familiar with the published record and with the available facts could only conclude that if Rafinesque was a titan he was a titan with feet of clay and no amount of creative writing will alter the picture.

genera. This was far from 'eschewing' his work, when sound. It was not the fault of either De Candolle or Gray that the great majority of Rafinesque's genera and species had been earlier described or were so vague as to be undecipherable. Neither is it through the 'prejudice' imagined by Peattie that earlier specific names have been taken up in Rafinesque's genera Peltandra, Hexalectris, Adlumia, Cladrastis, Nemopanthus, Osmorhiza, etc., nor that later monographers have discarded his genera Didiplis, Steironema, Thysanthes, etc. Koehne, Handel-Mazzetti and Pennell, who made these generic reductions, had no 'prejudice' against Rafinesque's work, when understandable. Dramatic and unfounded statements have no place in real science; they belong in fiction."

#### THE UNCONTROLLABLE OPTIMIST

Versatile, positive, in a sense aggressive, with a phenomenal memory, an unusually wide knowledge of languages, uncontrolled and uncontrollable, Rafinesque proceeded on his way apparently convinced that his mission was to correct the errors of all of his contemporaries and predecessors in the wide realm of biology and many other fields of human endeavor. He scorned the opinions of his contemporaries and in some cases, and in no uncertain manner, pointed out some of their weaknesses and errors. Apparently when his contributions were refused by the editors of this or that periodical, as was not infrequently the case, he expanded his private publishing activities to the limits of his available income. This private publishing activity was, as noted above, initiated in Palermo, Sicily, in 1809, or perhaps in 1808, was continued there until 1815, reinitiated on a small scale first in Philadelphia, in 1816, slightly expanded during the period that he lived in Lexington, Kentucky, 1819-1825, and reached its apogee after he returned to Philadelphia, and particularly in the decade between 1830 and 1840.

#### EVIDENCES OF POOR JUDGMENT

This intense publishing activity of Rafinesque was another indication of his lack of good judgment, there being very little demand for the technical works that Rafinesque insisted on preparing and publishing. In this last hectic decade of Rafinesque's life he became even more Rafinesquian than he had been in the earlier years, his publishing activities continuing up to the very end. It was apparently to a very considerable degree the dissipation of his always limited financial resources to cover the printing costs of his numerous privately published works, from the sales of which the financial returns must have been very small, that left Rafinesque a veritable pauper at the end. It may be worthy of note that eighteen privately published volumes were issued between 1830 and 1840 that contained from 100 to 265, and another long series from 75 to 100 pages each, the two series containing a total of somewhat in excess of 3700 printed pages; and these figures do not include the numerous smaller pamphlets and no account is taken of his extensive contributions to periodical literature such as those that appeared in the Saturday Evening Post and The Casket.

We may admit that in some respects Rafinesque was ahead of the times. He realized the significance of the natural system of classification long before his colleagues in the United States even considered it. He recognized and largely based his work on the type principle. He properly subdivided certain large genera, anticipating our modern concepts of generic limits, although in many cases he extended the subdivisions entirely beyond reason (see p. 18). He outlined briefly his ideas on organic evolution. He was impatient of the limitations and shortcomings of his colleagues. However, the very fact that he published voluminously (see p. 40), and on an enormous range of subject matter

(see p. 44) does not make him great; the fact that he proposed more new generic names than any botanist who ever lived and a plethora of ill-founded new species again does not add to his stature. It is the lasting nature of one's contributions to a science that qualifies this or that individual for his place of fame in the history of a subject, and here Rafinesque definitely failed to qualify. He had the opportunity of actually becoming one of the great botanists of his time, but this opportunity he thoroughly missed. There are those who rather brutally say it is too bad that Rafinesque did not lose his life in the shipwreck in which he lost his herbarium, library, and manuscripts in 1815, for later generations of biologists would then have been spared the endless task of trying to unravel his thousands of nomenclatural enigmas; and there are doubtless those moderns who will insist that anyone who concerns himself with such an erratic individual as Rafinesque a century after the latter's death deserves just as little consideration as does that prince of erratic botanists. After several years of effort devoted in part to a consideration of the unending series of problems in botany alone, raised by Rafinesque's work, my frank conclusion is that in taxonomy and nomenclature we would have been infinitely better off today had Rafinesque never written or published anything appertaining to the subject.

I cannot help but feel, however, that the very fact that so much of Rafinesque's botanical work has been rather studiously ignored by the majority of American and other modern botanists is a reflection on botanical bibliographic research in the United States. I repeat that what I have here done for Rafinesque should have been done by some American botanist at least a half century ago (see p. 3). Thus it is that those who criticize this type of bibliographic research criticize themselves for their own shortcomings. I quote the closing statement from a previous publication: 46

"From a purely bibliographical standpoint Rafinesque's botanical publications are distinctly worthy of careful consideration, no matter how much his work may be criticized; and his work is, on the whole, eminently worthy of severe criticism. It is to be regretted, in justice to him, that the necessity of considering what he proposed was not realized at an earlier date. Asa Gray, Am. Jour. Sci. 40: 234. 1841, recognized this in the year following Rafinesque's death, for in 1841 he stated: 'Many of Rafinesque's names should have been adopted; some as a matter of courtesy, and others in accordance with strict rule.' A century later about the best we can do, when it is discovered that a Rafinesque generic name antedates a currently accepted one proposed by some other author, in ignorance of what Rafinesque published, is promptly to add the Rafinesque name to the already over-long list of nomina generica rejicienda. This, in Asa Gray's words, 'is neither courteous nor in accord with strict rule.' We who follow the cult of Flora, in times of old worshipped by the Romans, might at least recall the words of Ovid: 'Pascitur in vivis livor. Post fata quiescit cum suus ex merito quemque tuetur honos.'"

#### SANE OR INSANE?

Rafinesque has been accused by many writers of being insane, and if one wishes to accept this verdict, it offers a very simple way of eliminating all Rafinesque nomenclatural problems by merely ignoring them on the basis that he was mentally incompetent. This was what most of his contemporaries did, and is doubtless what some modern botanists would prefer to do. But who shall say? Was Rafinesque more erratic in his nomenclature and in his concept of generic and specific limits than were such modern botanists as Hector Léveillé, Michael Gandoger, E. H. L. Krause, or even a Sargent on Crataegus, an E. L. Greene in reference to inordinately fine distinctions as to species in numerous genera, or a Britton, a Rydberg, or a J. K. Small (this list could be very considerably extended) as representatives of the so-called "splitters," as opposed to the conservative school in reference to the limits of both genera and species? See p. 46.

I argue for neither acceptance nor rejection of Rafinesque's nomenclatural proposals. Acceptance of this or that name will in some cases further upset nomenclature, and again many difficulties are involved in interpreting just what Rafinesque intended this or that name to represent. I am not content to condone careless bibliographic work on the part of those later authors who have proposed and published new generic names, some even within the last two decades, when Rafinesque had proposed valid names for exactly the same groups from a decade or so to a century earlier; see pp. 25, 26.

The Audubon episode regarding Rafinesque's smashing the former's favorite Cremona violin while attempting to capture a bat in his sleeping room while he was Audubon's guest; his describing of new genera and species of fishes on the basis of purely imaginary drawings that Audubon prepared as a hoax; and the episode, which is definitely untrue, as anyone can prove by examining the original article, of Rafinesque's being charged with having named and described new species of thunder and lightning 47 and other similar anecdotes regarding that strange individual will continue to be repeated and in general they will lose nothing in repetition. Rafinesque was unstable, he was neurotic, perhaps at times he was on the verge of insanity, but far be it from me even to attempt to prove that he was actually insane. I know that there are individuals who will insist that this was the case and that they can prove it, but insane as Durand and others have claimed, or not, he was at times remarkably normal, even if we must admit that he was at other times often more illogical

<sup>&</sup>lt;sup>46</sup> Merrill, E. D. Rafinesque's Publications From the Standpoint of World Botany. Proc. Am. Philos. Soc. **87**: 110-119. 1943, republished, Chron. Bot. **10**: 360-373. 1946.

<sup>&</sup>lt;sup>47</sup> Regarding this too frequently repeated story, Fitzpatrick, J. T. Rafinesque, A Sketch of His Life With Bibliography. 102. 1911, says: "This article [On the different Lightnings observed in the western states \* \* \* Western Review and Miscellaneous Magazine vol. I, no. I. pp. 60-62. \* \* \* 1819] is the basis of the gross calumny inflicted on Rafinesque by various writers. They only discredit themselves who charge that Rafinesque deliberately described twelve new species of thunder and lightning."

than logical. He lacked balance, perspective, judgment, being markedly egotistical and erratic; he was always planning vast projects that were quite beyond the scope of his means to consummate, but these traits do not make him insane.

After all, what is insanity, and just when does one go beyond the pale? This is a matter for the alienist and the psychiatrist and not for the ordinary botanist or zoologist to decide, no matter what the degree of exasperation may be when one attempts to work out a Rafinesque enigma in nomenclature. In the popular mind most botanists who concern themselves with problems of nomenclature and classification and even those who prosecute field work are thought to be at least a little "queer"; and Rafinesque concerned himself with these fields in an unmistakable manner. I am reminded of a familiar quotation from Dryden:

"Great wits are sure to madness near allied And thin partitions do their bounds divide."

Edgar Allan Poe, himself an individualist, concerned himself with the subject in his "Eleanora":

"But the question is not yet settled whether madness is or is not the loftiest intelligence; whether much that is glorious, whether all that is profound, does not spring from disease of thought, from moods of mind exalted in the expense of the general intellect. They who dream by day are cognizant of many things which escape those who dream only by night. In their gray visions they obtain glimpses of eternity, and thrill, in waking, to find that they have been upon the verge of the wisdom which is of good, and more of the mere knowledge which is of evil. They penetrate, however rudderless or compassless, into the vast ocean of the 'light ineffable' . . ."

Perhaps at times Rafinesque was mentally beyond the pale, and one of these times might have been immediately following his shipwreck in November, 1815, wherein, as expressed by himself,48 he "lost everything, my fortune, my share of the cargo, my collections and labors of 20 years past, my books, my manuscripts, my drawings, even my clothes . . . all that I possessed, except some scattered funds, and the Insurance ordered in England for one-third the value of my goods." He goes on to say that for some days after the catastrophe he was in a state of utter despair. It was perhaps then, or shortly thereafter, that he wrote the letter to some friend or correspondent in Italy, on which "v.W." [Ludwig, Freiherr von Welden] later based his little note, with the strange title in the table of contents: Rafinesque, Entdeckung neuer Gewächse im Schwimmen, but which in the text appears under the title Curiosa in Flora 5 (2): 719. 1822. This, because it is indeed a curiosity, is reproduced below. Enough is said when one reads that in order to save his life he infers that he had to swim a long distance after the shipwreck, in the course of which he observed many new genera and species of fishes and marine plants which he then planned to describe as new.

It has been stated by various contemporaneous authors who knew Rafinesque personally, among them

48 Rafinesque, C. S. A Life of Travels 48-49. 1836.

John Torrey, that he was obsessed with the idea that very many of the plants, animals, and fossils that he observed in the eastern United States were unnamed and undescribed new species, and this idea is substantiated by Rafinesque's voluminous publications; perhaps that obsession was strong when he penned the letter that von Welden later saw. Torrey's statement, taken from a letter written by him to Amos Eaton, Bot. Gaz. 8: 289-291. 1883, is: "He [Rafinesque] is the best naturalist I am acquainted with, but he is too fond of novelty. He finds too many new things. All is new! new!" Having no inhibitions and no one to control him in his very numerous privately published works, and even more numerous shorter papers published here and there in periodical literature of North America and Europe, before the editors of the various serials realized Rafinesque's weaknesses, he definitely proved the claims against him. Yet nowhere did he ever publish the names and descriptions of the strange new organisms that, in his mind's eye, he observed in the quiet waters of Long Island Sound on that fatal foggy November day in 1815. Here is von Welden's statement:

"Der ganzen botanischen Welt is Hr. Rafinesque Schmaltz, Bürger der vereinigten Staaten, ein sehr grosser Sammler und Beschreiber von Pflanzen und Fischen, und überhaupt mannigfaltiger Naturgegenstände bekannt, seine Tauschanträge, die in der Flora erschienen, geben eine grosse Idee von seinen Reichthümern und Vorräthen. Ich habe auf einer meiner Reisen nach Toscana einen Brief dieses Herrn an einen sehr geachteten Naturkündiger gesehen, worin ihm Herr Rafinesque anzeigt, dass er mit all seinen in Sicilien und Italien gesammelten Schätzen das Unglück gehabt hätte im Angesicht des nordamerikanischen Hafens, dem Orte seiner Bestimmung, Schiffbruch zu leiden, er für seine Person hätte sich jedoch mit Noth und Gefahr seines Lebens durch Schwimmen gerettet. Da die Strecke, die er so hätte zurücklegen müssen, ziemlich lang war, hatte er bei dieser Gelegenheit mehrere ganz neue Genera und Species von Fischen, Seepflanzen etc. entdeckt, die er denn nun auch beschreibt.

"Wie gross muss nicht die Leidenschaft für die Produkte der Natur und jene ein neues Genus zu machen seyn, welche Besonnenheit gehört dazu, wenn man selbst mit den Wellen, so zu sagen mit dem Tode kämpfend, alle dies genauen Untersuchungen zu machen im Stande ist, die doch für die Aufstellung neuer Arten nöthig seyn dürften!!?"

No one can legitimately claim that Rafinesque was a normal individual, but one may take exception to the claims that he was actually insane. On occasions he may have approached the latter condition, and perhaps for limited periods he passed entirely out of the realm of normality. Certainly, however, when he penned the following passages <sup>49</sup> he was as normal as any botanist who ever prepared a manuscript for publication:

"Although these journeys were often undertaken with the additional ulterior view to collect Fossils and Animals, my favorite science and pursuit of Botany was always my main object. I always travelled with my botanical collecting book and reams of paper to preserve my plants: and thus I have been enabled to collect in 20 years since 1816, a most valuable Herbarium, rich in new species, rare plants, and complete Monographs; which have been increased by exchanges and pur-

<sup>&</sup>lt;sup>49</sup> Rafinesque, C. S. New Flora of North America 1: 10-15. 1836.

chases, chiefly of Southern plants; not having been able to explore as yet the Southern States, deterred by the bad roads, unhealthy climate, scanty fare, heavy expenses and state of society. A pedestrian Botanist is not always very welcome there.

"During so many years of active and arduous explorations, I have met of course all kinds of adventures, fares and treatment. I have been welcomed under the hospitable roof of friends of knowledge or enterprise, else laughed at as a mad Botanist by scornful ignorance. Often deemed a herbalist and wandering doctor by the vulgar, I have allowed or indulged this harmless belief, and thereby elicited from many quarters the local knowledge of medical facts, which I have published in my Medical Flora of the United States.

"I have seldom met with liberal enlightened men, who could believe that I was actuated by the pure love of knowledge and science; yet I have found such worthy men sometimes and their names are gratefully impressed on my memory. Such were J. D. Clifford, Alex. Walsh, Mess. Knevels, Adlum, Dr. Schultz, D. Jackson, H. Clay, Clinton, Meade, Maclane, Wells, Thompson, Aldie, &c, who without being Botanists, or at most mere florists, could appreciate my pursuits and facilitate my researches. As to Botanists and Zooligists [sic!] I made it a point to search for them and enjoy their society, mutually imparting our knowledge.

"Such a life of travels and exertions has its pleasures and its pains, its sudden delights and deep joys, mixt with dangers, trials, difficulties, and troubles. No one could better paint them than myself, who has experienced them all; but I must be brief

in conveying a slight idea of them.

"Let the practical Botanist who wishes like myself to be a pioneer of science, and to increase the knowledge of plants, be fully prepared to meet dangers of all sorts in the wild groves and mountains of America. The mere fatigue of a pedestrian journey is nothing compared to the gloom of solitary forests, when not a human being is met for many miles, and if met he may be mistrusted; when the food and collections must be carried in your pocket or knapsack from day to day; when the fare is not only scanty but sometimes worse; when you must live on corn bread and salt pork, be burnt and steamed by a hot sun at noon, or drenched by rain, even with an umbrella in hand, as I always had.

"Musquitoes and flies will often annoy you or suck your blood if you stop or leave a hurried step. Gnats dance before the eyes and often fall in unless you shut them; insects creep on you and into your ears. Ants crawl on you whenever you rest on the ground, wasps will assail you like furies if you touch their nests. But ticks the worst of all are unavoidable whenever you go among bushes, and stick to you in crowds, filling your skin with pimples and sores. Spiders, gallineps, horseflies and other obnoxious insects will often beset you, or sorely hurt you. Hateful snakes are met, and if poisonous are very dangerous, some do not warn you off like the Rattle-snakes.

"You meet rough or muddy roads to vex you, and blind paths to perplex you, rocks, mountains, and steep ascents. You may often loose your way, and must always have a compass with you as I had. You may be lamed in climbing rocks for plants or break your limbs by a fall. You must cross and wade through brooks, creeks, rivers and swamps. In deep fords or in swift streams you may lose your footing and be drowned. You may be overtaken by a storm, the trees fall around you, the thunder roars and strikes before you. The winds may annoy you, the fire of heaven or of men sets fire to the grass or forest, and you may be surrounded by it, unless you fly for your life.

"You may travel over an unhealthy region or in a sickly season, you may fall sick on the road and become helpless, unless you be very careful, abstenious [abstenious] and temperate.

"Such are some of the dangers and troubles of a botanical excursion in the mountains and forests of North America. The sedentary botanists or those who travel in carriages or by steamboats, know little of them; those who merely herborize near a city or town, do not appreciate the courage of those who

brave such dangers to reap the botanical wealth of the land, nor sufficiently value the collections thus made.

"Yet although I have felt all those miseries, I have escaped some to which others are liable. I have never been compelled to sleep at night on the ground, but have always found a shelter. I have never been actually starved, nor assailed by snakes or wild beasts, nor robbed, nor drowned, nor suddenly unwell. Temperance and the disuse of tobacco have partly availed me, and always kept me in health.

"In fact I never was healthier and happier than when I encountered those dangers, while a sedentary life has often made me unhappy or unwell. I like the free range of the woods and glades, I hate the sight of fences like the Indians! The free constant exercise and pleasurable excitement is always

conductive to health and pleasure.

"The pleasures of a botanical exploration fully compensate for these miseries and dangers, else no one would be a travelling Botanist, nor spend his time and money in vain. Many fair-days and fair-roads are met with, a clear sky or a bracing breeze inspires delight and ease, you breathe the pure air of the country, every rill and brook offers a draught of limpid fluid. What delight to meet with a spring after a thirsty walk, or a bowl of cool milk out of the dairy! What sound sleep at night after a long day's walk, what soothing naps at noon under a shaded tree near a purling brook!

"Every step taken into the fields, groves, and hills, appears to afford new enjoyments, Landscapes and Plants jointly meet in your sight. Here is an old acquaintance seen again; there a novelty, a rare plant, perhaps a new one! greets your view: you hasten to pluck it, examine it, admire, and put it in your book. Then you walk on thinking what it might be, or may

book. Then you walk on thinking what it might be, or may be made by you hereafter. You feel an exultation, you are a conqueror, you have made a conquest over Nature, you are going to add a new object, or a page to science. This peaceful conquest has cost no tears, but fills your mind with a proud sensation of not being useless on earth, of having detected

another link of the creative power of God.

"Such are the delightful feelings of a real botanist, who travels not for lucre nor paltry pay. Those who do, often think only of how much the root or the seed or the specimen will

fetch at home or in their garden.

"When you ramble by turns in the shady groves, grassy glades, rocky hills, or steep mountains, you meet new charms peculiar to each; even the gloomy forest affords a shady walk. Every rock, nook, rill . . . has peculiar plants inviting your attention. When nothing new nor rare appears, you commune with your mind and your God in lofty thoughts or dreams of happiness. Every pure botanist is a good man, a happy man, and a religious man. He lives with God in his wide temple not made by hands. . . .

"To these botanical pleasures may be added the anticipation of the future names, places, uses, history, &c. of the plants you discover. For the winter or season of rest, are reserved the sedentary pleasures of comparing, studying, naming, describing and publishing. A time may come, when if all plants are well known, little will be left to be done, except seeking rare plants or occasional deviations and varieties; but a long while will elapse before this may take place, since so few of our plants are completely known as yet. Then will begin the labors of the draftsman, the collector of rare plants and roots, or the seeking of special and generic deviations."

### A Psychiatrist's Opinion

Being somewhat curious as to what an experienced psychiatrist's reactions might be from reading various papers by and about Rafinesque, I asked Doctor J. M. Woodall, Boston psychiatrist and Medical Director of Adams House, to scan certain articles published by Rafinesque, including his *Life of Travels*, and certain papers by other authors about Rafinesque. This he very

kindly did, and has courteously supplied the following report. It is interesting to note that his conclusion is that Rafinesque suffered from psychic disorder, but this was neurotic rather than psychotic. Doctor Woodall's report follows:

In an attempt to make an objective delineation of the personality of Rafinesque from his own account of his life one is forced to contend with the temptation his writings invite to effusive speculation and value opinion. However a careful study of his utterances, behavior, habits and performances as revealed in his autobiographical material is productive of an abundance of characterological data much of which justifies a conclusion as to his personality and character structure.

The composite impression one experiences of Rafinesque is that of a person in the grasp of an inexhaustible energy, a restless and tireless wanderer, an indefatigable examiner and reporter of natural phenomena, a consummate egoist of consuming intellectual appetite and versatility, whose prodigious productivity seems to have been the result of compulsive forces rather than a volitional direction. One gains the impression that he was inhabited by a driving force which made of him but a vehicle for its intellectual and physical expression and gave to his activities an automatic and indiscriminate character usually lacking where conscious choice and seasoned judgment are operative. There is a compulsion and inevitability to the outpouring of the grist of his intellectual mill which imparts to the process a quality that is detached, unbridled and undisciplined.

Evidence adequately warrants the conclusion that Rafinesque was a genius. He possessed a versatility of kaleidoscopic range. His work frequently was said to be careless, incorrect and unreliable. His ceaseless, compulsive mental activity, rapidity of execution and magnitude of output-representations of his character organization-adequately account for whatever lack of integrity his work possessed. I can find no evidence for dishonesty or that he was motivated by a desire to deceive. He was not a charlatan inasmuch as there was no conscious desire to misrepresent. His errors went uncorrected because he could not afford to let himself know they existed. Unreliability is a justifiable accusation. It is the natural expectation in a person almost completely lacking in self-criticism. He was guilty of failure to remove his errors. His judgment was obviously impaired but this should not be confused with dishonesty. Of what quality is that portion of his work found to be correct?

Aside from his extraordinary intellectual and energy endowments, qualities to be accounted for by heredity, his bizarre habits and performances are to be understood only when considered in the light of his personality reactivity and general character organization. Inasmuch as there is but meagre knowledge of his formative years it would be sheer guesswork to attempt to state why his character structure took the form that it did. Suffice it to say that character organization is the product, in

general terms, of the interplay of environmental influences upon an inherited constitution; and we know but little about either of these elements in the early life of Rafinesque.

Character trends bear a reciprocal relationship to the pattern of the behavior responses. The latter are but an expression of the former. The peculiar performances of Rafinesque were an expression of the demands of his character components. His behavior, otherwise meaningless, becomes intelligible and rational when viewed as an expression of his adaptive struggle. In such a struggle attitudes and patterns of behavior are formulated for dealing with the environment which have as their objective the preservation of the respective character organization, whether normal or abnormal. The patterns assumed by his behavior responses therefore subserved a protective function and it is this protective function which gave to them their compulsiveness, rigidity and indiscriminate application. These patterns were expressive of his individuality. Furthermore his security was based upon the maintenance of these established patterns of response insofar as they represented his methods of dealing with the world according to his lights.

Within the actual character edifice of Rafinesque the ego or self is of chief concern insofar as within its framework are to be found his ideas and attitudes of personal worth—values motivating his adaptive strivings. His ego was enlarged and hypertrophied to an abnormal degree. Its expansiveness was of such proportions as to constitute megalomania. About this inflated image of self as a central core his entire character organization revolved and crystallized. His life's energies flowed into behavior expressions which best allowed him to experience reality in accordance with his inflated ego values. His adaptive struggle became one of finding confirmation of his self-inflation in his relationship to life.

His actions therefore were entirely consistent with his concept of self. His attitudes were in conformity likewise with his ego values. No element of doubt as to the high quality of his work was allowed to enter his mind. He felt that he had a mission in life: to instruct, to improve and to reform. An overbearing manner reflected feelings of superiority.

In his contact with life whatever tended to conflict with his inflated image of self—whether person or situation—had to be depreciated. His colleagues were experienced as inferiors or peers but never as superiors. Some who disagreed with him were considered to be incapable of appreciating the high quality of his efforts and were therefore regarded as inferiors. Others who failed to confirm his narcissistic attitude were experienced as enemies and appeared in the light of persecutors. Admiration and prestige were obviously essential to his sense of well being.

If a name must be given to the type of personality possessed by Rafinesque that of paranoid is the one of choice. His inflated image of self, his tendency to projection and his ineffectuality are all characteristic of a paranoid type of character structure. He was destined throughout his life to feel that others were slighting him. He suffered much from their failure to recognize his worth. "My works, researches, travels, collections, etc., will remain as proof of uncommon zeal, although unrequited and unrewarded."

From the evidence at hand I do not consider Rafinesque to have been insane. His reality was not qualitatively different from that of other people although unquestionably its value was quantitatively altered. While in constant conflict with reality he nevertheless met its demands. His distorted character structure forced him to cope with life under conditions which were difficult. His capacity to enjoy life was markedly impaired due to the limited means of attaining satisfaction and security imposed upon him by his distorted character structure, but nevertheless he experienced life in essentially the same terms as those around him. His character trends caused him to stand in his own way, to live a life of relative frustration and to accomplish much less than was consistent with his extraordinary intellectual capacities.

Rafinesque suffered from a psychic disorder despite the fact that he met environmental demands. This disturbance was neurotic in character rather than psychotic. When the character traits of a person are of such nature that collectively they interfere with an efficient and appropriate adaptation and therefore with the effectuality of that person, albeit such character traits represent individualized patterns of adaptive response, that person may be considered neurotic. In this sense we may consider Rafinesque to have been neurotic and his life to have been a representation of such neuroticism.

# On Methods of Determining the Status of Inadequately Described Genera and Species

Among the several hundred thousand named and described species of plants for which in excess of 1,000,000 binomials have been published, a surprisingly high percentage of the proposed new species lie in that borderland of inadequately described and misunderstood ones; to a much less degree this statement applies to genera. One of the objectives of all critical monographs or revisions of genera and of families, either for the entire world or for specific areas, is to account for all legitimately published technical names in connection with the determination of the valid name for each genus, species, or variety, and the adjustment of synonymy. Doubtless many professional botanists may at times devoutly wish that there was no such a category as synonymy. How much easier it would be to start out de novo on the basis of ample and well prepared material, than to be obliged to locate all published descriptions and to determine just what this or that author intended by this or that often incomplete and frequently wholly inadequate description.

In the case of doubtful entities clearly the simplest way to reach a satisfactory conclusion is to examine the material on which this or that genus or species was based, better the holotype, or if that be not available, then a duplicate type, or an authentically named specimen. Unfortunately in the history of botany it is found that too many authors, especially the earlier ones, never preserved specimens to represent the forms that they described as new; in other cases, even if specimens were prepared they were later destroyed. Merely because the actual type of an entity no longer exists is no reason for excluding this or that species from consideration. Thus it is that in a very large number of cases no type or even duplicate type exists, and the individual investigator must interpret this or that genus or species solely from the published record. In such cases he hopes and prays that the original author did not erroneously misinterpret basic morphological characters, for if he did the difficulties are vastly increased.

It was my fate to be compelled to accomplish a large amount of descriptive botanical work appertaining to regions where the pioneer botanists who prepared and published the early descriptive floras preserved little or no botanical material. Thus it was that in trying to account for this or that genus or species proposed and described by such authors as the younger Burman, Osbeck, Loureiro, Blanco, Llanos, Houttuyn and others, and even such pre-Linnaean authors as Rumphius (1627-1702; publ. 1741-1755) I was forced to depend basically on the published record. In the case of Burman, Osbeck, Loureiro and Llanos certain types were preserved, but for all of Blanco's, most of those described by Llanos and by Loureiro, and all of the numerous generic and specific names based by Linnaeus and his successors wholly on the work of Rumphius, Rheede, and other early authors, no types are extant.

It is fully realized that some contemporaneous botanists frown on this type of work, probably one reason being that they feel that in the absence of a type specimen one cannot be absolutely certain as to just what was intended by certain early names, and that it would be better to ignore them; certainly they feel that it is unwise to upset nomenclature by accepting this or that early name the exact application of which they may consider to be doubtful. The conservatives always object to changes in names that are necessitated by the rule of priority; and yet most of them would frankly admit that they believe in the rule—one suspects with a mental reservation that the priority rule is all right so long as it is not applied to groups with which they are familiar.

Regardless of criticisms and with a full realization that some of my conclusions in the past have been shown to be erroneous, I personally feel that if we expect future generations of botanists to respect our own work, then we should at least attempt to recognize and give due credit to the work of our predecessors. Where they in good faith proposed names that are valid and where such names have priority and their application can be

established with reasonable certainty, such names in general should be accepted. No matter how much we may legitimately criticize the work of this or that early author-or modern one for that matter-we should realize that, generally speaking, and presumably like ourselves, each one was trying to do the best that he could with such data as were actually available to him. We realize, as A. DeCandolle, La phytographie 141. 1880, has expressed it, in speaking of the really bad work of certain early authors of works on natural history; "l'existence de certains noms et de certaines planches rend nécessaire de consulter indéfiniment les plus mauvais ouvrages." There is, however, no remedy for this situation other than by some future botanical congress actually, by vote, eliminating this or that work from consideration. Such action is very rarely taken and then only in the most obvious cases.

While my own work in this field has been largely on floras regarding which the average American botanist has little information and, generally speaking, less interest, the storm of verbal criticism increases in limited quarters as in recent years I commenced to give bibliographic attention to local North American problems which, strangely, have been overlooked by most workers in our few productive botanical centers. I have stated elsewhere in this document that it is to the discredit of American bibliographic methods in botany that this *Index Rafinesquianus* was not prepared and published a half century earlier. My major past publications in this complex field, for it is one full of pitfalls of one type or another, are as follows:

- Merrill, E. D. Osbeck's Dagbok öfwer en ostindsk Resa. Am. Jour. Bot. 3: 571-588. 1916.
- An Interpretation of Rumphius's Herbarium Amboinense. Bur. Sci. Publ. 9: 1-595, map, 1917. Manila.
- ——— Species Blancoanae. A Critical Revision of the Philippine Species of Plants Described by Blanco and by Llanos. Bur. Sci. Publ. 12: 1-423, map, 1918. Manila.
- A Review of the New Species of Plants Proposed by
   N. L. Burman in his Flora Indica. Philip. Jour. Sci. 19: 329-388. 1921.
- A Commentary on Loureiro's "Flora Cochinchinensis." Trans. Am. Philos. Soc. II. 24(2): 1-445. 1935.
- A Critical Consideration of Houttuyn's New Genera and New Species of Plants, 1773-1783. Jour. Arnold Arb. 19: 291-375. 1938.
- Additional Notes on Houttuyn's Binomials, op. cit. 20: 264-268, 1939.
- In Defense of the Validity of William Bartram's Binomials. Bartonia 23: 10-35. 1945.
- & Reeder, J. R. New Plant Names Published by Amos Eaton Between the Years 1817 and 1840. Bartonia 24: 26-79. 1946.
- ---- Unlisted Binomials in Chapman's Flora of the Southern United States. Castanea 13: 61-70. 1948.
- Unlisted New Names in Alfonso Wood's Botanical Publications. Rhodora 50: 101-130. 1948.
- Binomials in the Publications of Henry Muhlenberg. ined.

When one must depend entirely on the published record where it becomes necessary or desirable to determine the status and relationships of a proposed genus

or species, one naturally first makes a critical examination of the original description. If this does not suffice the next step is to determine whether or not the type is available. If it be extant it should, if possible, be examined. In the absence of a type specimen or authentically named material one should then determine, if possible, just where the material on which the description was based came from; and the next logical step is to study material from the type locality in connection with a consideration of the published description itself. It is surprising how often very inadequately described species can definitely be placed by following this simple but entirely logical procedure.

Not infrequently an early author may have grossly misinterpreted certain morphological characters and thus placed his assumed new species or genus in the wrong natural group remote from where it actually belongs. One may note in passing, that some modern botanists make just as gross errors, on occasion, as did earlier ones. Thus in 1922 I described Juppia as a new genus of the Menispermaceae on the basis of a staminate specimen, when in actuality what I had was a specimen of Zanonia Linn. of the Cucurbitaceae. Léveillé in 1912 described a monocotyledonous plant of the genus Tacca (Taccaceae) as a new species of Clerodendron of the dicotyledonous family Verbenaceae. In such cases a critical reëxamination of the type material will generally solve the problem. When no type or even correctly named specimen is extant it is surprising how many of these "misplaced" entities can be correctly interpreted by applying the principle of elimination. This is actually the determination of what plant species growing in a certain region or in a certain locality and habitat agrees with the description of such and such an author who said that his material was from the same region or locality. It is admitted that in the absence of a type specimen it would probably be very difficult properly to interpret such a genus as Axia Lour. because of the misinterpretation of certain morphological characters by Loureiro; and yet Bentham shrewdly surmised, from Loureiro's description, that Boerhavia Linn, was the genus involved with the bracts erroneously described as representing the calyx. Loureiro's type is fortunately extant, Boerhavia is the genus represented, and an examination of it proves that Bentham's surmise was correct. Below are given a few examples of the actual application of the principle of elimination.

In 1790 Gaura chinensis Lour, was described, the habitat and locality being indicated as "inculta Cantone Sinarum." Gaura belongs in the Onagraceae, strictly a North American genus except as one species has been spread in cultivation. Loureiro's description is fortunately ample and with excellent detail. It manifestly does not apply to any onagraceous plant known from China. What species is there in the vicinity of Canton in southeastern China that conforms to Loureiro's description? There is only one, and this is Halorhagis scabra (Koenig) Benth. (Goniocarpus scaber Koenig, 1805)=Halorhagis chinensis (Lour.) Merr. of the

Halorhagaceae. An even more striking case is Drosera umbellata Lour. (1790), amply and accurately described and indicated as occurring in "China," which is not too definite a locality. The only plant species known from all of China that conforms to Loureiro's excellent description is the primulaceous Androsace saxifragifolia Bunge (1833) = Androsace umbellata (Lour.) Merr. One can readily understand the chagrin and vexation of modern botanists who monographed the Halorhagidaceae and the Primulaceae because these names were overlooked. Neither would have the slightest reason for searching in the Onagraceae or the Droseraceae for possible descriptions that he should consider, and they cannot be blamed for the oversight. Here two currently used specific names accepted in our latest monographic treatises are now replaced by earlier ones.

It is by no means always that a currently accepted name is replaced when the status of some doubtful species is determined. Thus take the case of Rhamnus lando Llanos (1880). From the reasonably ample description it is clear that no rhamnaceous plant was involved. The type was from Bulacan Province, Luzon, in the Philippine Islands. I must confess that when I took up this case I had no idea as to what family was represented. Here was a plant described as being scandent, woody, and spiny, its leaves acid to the taste and actually eaten by the natives. The specific name was taken from the Tagalog plant name lando. Here the clue to the solution of the problem came through the native name, for in the general region whence the Llanos specimen came the name lando is still used for and limited to this species; the plant does have acid leaves that are actually eaten by the natives; and it is to a certain degree "spiny" in that the basal portions of certain branches persist as spine-like organs. I had not thought of the Myrsinaceae as even a possible family for Rhamnus lando Llanos for I did not then know of any spiny myrsinaceous plant and I did not know that any representative of the family actually had acid edible leaves. Rhamnus lando Llanos (1880) proves to be a synonym of Embelia philippinensis A. DC. (1844).

As striking as this is the supposedly cistaceous Helianthemum triflorum Blanco (1845), which, on the basis of the original description, plus the application of the principle of elimination, and a consideration of native names, proves unquestionably to be the same as the tiliaceous Grewia stylocarpa Warb.=Microcos stylocarpa (Warb.) Burret, and not the theaceous Archytaea alternifolia (Vahl) Hochr., to which it had been erroneously reduced; no representative of the latter genus is known to occur in the Philippines, while Microcos stylocarpa (Warb.) Burret is very common in the regions covered by Blanco's work.

Even when it comes to totally inadequate original descriptions, where it is reasonably clear that the entity was placed in the right family and also reasonably close to its proper genus, it is again surprising how often such a species can definitely be placed by individuals familiar with a local flora. A classical example of this

is Adelia papillaris Blanco (1845) for all that Blanco said regarding this new species was: "Adelia de pezones. Arbolitos dioicos con las cagillas cubiertas no de barbas sino de pezones cortos. Guadalupe." Admittedly this is a hopelessly short description for the closet botanist unfamiliar with a flora or with a particular region. Yet one may visit Guadalupe today, which is only a few miles from Manila, where he will find in abundance and within a stone's throw of the ruined convento of the Augustinian Order, of which Father Blanco was a member, and a place that he frequently visited, a dioecious shrub whose capsules are covered with short nipple-like excrescences, not bearded as in certain other species that Blanco placed in Adelia (Mallotus, Macaranga); and incidentally this species is the only one of the entire group that grows anywhere near Guadalupe. Closer home I personally do not hesitate in following Fernald in accepting such very briefly characterized species as Stillingia fruticosa Bartr. =Sebastiana fruticosa (Bartr.) Fernald, Quercus incana Bartr. (Q. cinerea Michx.), and Heracleum maximum Bartr. (H. lanatum Michx.), even when acceptance of the earlier name may displace a long used binomial.

# The Application of the Principle of Elimination as Applied to Rafinesque Problems

Returning to the Rafinesque scene, the reader is referred to a series of papers by Professor M. L. Fernald that have appeared in recent volumes of Rhodora, in which he has critically discussed various Rafinesque species and in a number of cases accepted Rafinesque's names as having priority, reducing currently used but later names of other authors to synonymy. Doubtless this procedure will make certain taxonomists writhe, but after all Fernald has merely accomplished what they or their predecessors should have done. Essentially in these studies he has applied this principle of elimination. Examples are Xyris albiflora Raf., 1840 (X. pallescens Small, 1903); Luzula acuminata Raf., 1840 (L. saltuensis Fernald, 1903); Convallaria montana Raf., 1840 (C. globosa Greene, C. majuscula Greene, 1908); Trillium flexipes Raf., 1840 (T. declinatum Gleason, 1906, T. gleasoni Fernald, 1908); T. cuneatum Raf., 1840 (T. hugeri Small, 1903); T. lancifolium Raf., 1840 (T. lanceolatum Boykin, 1879); T. maculatum Raf., 1840 (T. underwoodii Small, 1897); Ammannia teres Raf., 1840 (A. koehnei Britton, 1891); Hydrolea uniflora Raf., 1840 (H. affinis A. Gray, 1867); Lycopus amplectens Raf., 1840 (L. sessiliflorus A. Gray, 1870); Spiranthes lacera Raf., 1833; S. montana Raf., 1833 (S. ovalis Lindl., 1840), S. tuberosa Raf., 1833 (S. beckii Lindl., 1840); Goodyera oblongifolia Raf., 1833 (Spiranthes decipiens Hook., 1839, Goodyera menziesii Lindl., 1840, G. decipiens F. T. Hubb., 1923); Dentaria grandiflora Raf., 1833 (D. macrocarpa Nutt., 1838); and Sanguisorba stipulata Raf., 1833 (S. sitchensis C. A. Mey., 1856, S. latifolia Coville, 1896). There are fairly numerous other examples already published and doubtless a considerable number of similar cases that will have to be decided on their merits by future investigators.

In those cases where Rafinesque described an inordinate number of new species from such a region as eastern North America, where modern investigators on the basis of intensive study, extensive field knowledge, and very ample collections of well prepared material have been able to differentiate only two or three species, reductions are relatively simple in spite of Rafinesque's brief data. Thus consider Rafinesque's own genus Clintonia where he actually published 20 binomials and 17 varieties, or the genus Dodecatheon, with 17 species. In Clintonia but two distinct species are currently recognized for the entire region covered by Rafinesque, so that most of his names would fall as synonyms of C. borealis (Ait.) Raf., fewer as synonyms of C. umbellulata (Michx.) Torr. In Dodecatheon from the Northeastern United States to Virginia, Illinois, Missouri and Arkansas Rafinesque inadequately characterized 17 species; and further to complicate the picture he, in 1840, accepted the generic name Meadia Mill. for the same group and published under it fifteen new binomials and five varietal names, two of the species being from as far afield as Siberia and one from Oregon. In most of the eastern United States but a single species occurs, D. meadia Linn. Thus it can rather safely be assumed that most of Rafinesque's 17 species of this genus and most of his 15 names in Meadia should be placed as synonyms of the Linnaean species. One might suspect, however, that possibly the name of such "species" as D. frenchii (Vasey) Rydb., D. radicatum Greene, D. hugeri Small, and D. brachycarpa Small might be antedated by some of those proposed by Rafinesque although it would be rather difficult to prove just what Rafinesque was trying to characterize because of his sketchy descriptions.<sup>50</sup> In the larger more complex genera such as Rosa, Trillium, and numerous others the task of determining the status of a Rafinesque entity becomes more difficult.

Among recent applications of this principle of elimination, as applied to inadequately described species of early American authors, including Rafinesque, may be cited the following illustrations. In 1934 Van Ooststroom <sup>51</sup> published an excellent treatment of the genus

50 Fassett, N. C. Dodecatheon in Eastern North America. Am. Midl. Nat. 31: 455-486. fig. 1-18. 1944, recognized but two species for the entire region, D. meadia Linn., with seven varieties and forms, and D. amethystinum Fassett. He dismissed Rafinesque's attempt at establishing species thus: "The 14 species of Dodecatheon described by Rafinesque, Atl. Jour. 1: 179-180. 1833, are based primarily on shape of leaves. They are quite unidentifiable from the descriptions and are probably all D. meadia. The only possibility of there being any prior name in the group is the remote chance of one of these names belonging to D. amethystinum." So it is perhaps better for these Rafinesque names to write here R.I.P., even if Fassett named and characterized a second species of Dodecatheon for the extensive region he covered as late as 1944.

<sup>51</sup> Van Ooststroom, S. J. A Monograph of the Genus Evolvulus. Meded. Bot. Mus. Herb. Rijksuniv. Utrecht 14: 1-267. 1934.

Evolvulus. At the end he lists five species that he considered to be of doubtful status, among these, Evolvulus cuneifolius Raf. The type of the latter was from the pine barrens of New Jersey, the flora of this region being a characteristic but poor one. When the Evolvulus paper reached me I asked Doctor Harold E. Moldenke to examine Rafinesque's description in the light of his intimate knowledge of the New Jersey pine barrens flora, and he reported that there was only one species in the region that conformed to Rafinesque's description and that this was Stylisma pickeringii (M. A. Curtis) A. Gray (Convolvulus pickeringii M. A. Curtis, Breweria pickeringii A. Gray, Bonamia pickeringii A. Gray). In this case the M. A. Curtis description happened to have been published one year before that of Rafinesque. Here Rafinesque merely placed his "new species" in the wrong genus.

Adnaria odorata Raf. Fl. Ludovic. 56. 1817, was a new genus and species proposed by Rafinesque on the basis of Robin's cursory description of Campanula 2 Rob. Voy. 3: 422. 1807, which Rafinesque, who saw no specimens, placed in the Vacciniaceae between Vaccinum and Oxycoccus. In 1891 O. Kuntze erroneously replaced Gaylussacia H.B.K. (1818) by Adnaria Raf. (1817) transferring about fifty specific names from the former to the latter. But Doctor Camp 52 has recently shown on the basis of field work in Louisiana at the proper season that the only vernal flowering shrub in the region explored by Robin (and occurring in the indicated habitat) that conforms to the latter's reasonably ample but cursory description is Styrax americana Lam. Thus it is that Adnaria odorata Raf. instead of being an ericaceous plant as most botanists have thought, proves to be a styracaceous one. From Robin's originally placing the species in the Campanulaceae and from the fact that Rafinesque, misled by the original descriptive data, placed it with equal error in the Ericaceae, one may be mildly surprised to find that both were dealing with a representative of the Styracaceae.

In the same paper and also on the basis of a study of the Rafinesque and Robin descriptions supplemented by the necessary local field work, Doctor Camp has definitely shown that the previously unplaced Arbutus obtusifolius Raf. Fl. Ludovic. 55. 1817 is nothing but the well-known Vaccinium arboreum Marsh. Arb. Am. 157. 1785. One could cite very many additional cases where Rafinesque's often or even usually inadequate descriptive data studied in connection with a knowledge of local field conditions makes the solution of a Rafinesque problem not only possible but positive.

One might query of what importance is this? I merely observe that in the interest of reasonable stability in nomenclature, five generic names were more or less involved (or at least under suspicion) in reference to a proper interpretation of Rafinesque's generic name Adnaria, these being Adnaria Raf. (1817), Gaylussacia

<sup>52</sup> Camp, W. H. Studies in the Ericales: the Search for Adnaria odorata Raf., and Arbutus obtusifolius Raf. Castanea 6: 80-83. 1941.

H.B.K. (1818), Decachaena Torr. & Gray (1847), Lasiococcus Small (1933), and Buxella Small (1933). In reference to the identity of Arbutus obtusifolius Raf. under suspicion were Desmothamnus lucidus (Lam.) Small, Pieris nitida auctt., Neopieris nitida (Bartr.) Britton, and Lyonia nitida (Bartr.) Fernald.

Equisetum praealtum [prealtum] Raf. Fl. Ludovic. 12. 1817 is now a generally accepted binomial among American botanists for a very widely distributed North American species that later (1844) was described by A. Braun as E. robustum A. Br., both specific names being excellent descriptive ones for the species. The basis of Rafinesque's short diagnosis was Robin's cursory description, Voy. Louis. 3: 330. 1807, of his: "Prêle (equisetum). Une très grande espèce croît de long du fleuve, occupe en touffes de larges places: elle s'élève jusqu'à cinq à six pieds. Ses tiges sont de la grosseur du doigt, nues, scabres, fistuleuses; les gaines, noirâtres, légèrement crénelées, ont la forme d'une couronne. Cette plante a beaucoup de rapport avec notre prêle d'hiver; elle est d'une grande utilité pour le bétail dans l'hiver. Les menuisiers l'emploient aussi pour polir le bois."

While this is not a formal botanical description, yet Robin does give certain characters of the species and correctly compares it with the European Equisetum hyemale Linn., with which also various American botanists have confused it by, at times, accepting the latter binomial as the proper one for the American form. Rafinesque's technical Latin diagnosis with supplementary data in English is, in this case, an excellent translation of Robin's statement. The species is, incidentally, the only Equisetum known from those parts of Louisiana that Robin explored, and is characteristically abundant in alluvial soil along the Mississippi River today. There can be no doubt as to what species was intended in this case, and there is hence every reason for maintaining Rafinesque's specific name. In following up the history of this species we note that in a later description of Equisetum robustum A. Br. Verh. Zool. Bot. Ges. Wien 12: 1249. 1862, Doctor Braun placed E. praealtum Raf. (1817), as a doubtful synonym of E. robustum A. Br. One cannot from comparing the descriptions alone—the finished exact one of A. Braun and the very incomplete and inadequate one of Rafinesque—settle the matter of specific identity of the two. In reducing E. robustum A. Br. as a synonym of the earlier E. praealtum Raf. we do not in any sense censure A. Braun, for at that time too little was known about the occurrence of Equisetum species in southern Louisiana to be positive as to the identity of the very sketchy described Rafinesque species. Today we can safely say that the two are identical.

Rafinesque attempted to cover an extraordinarily wide field in botany, for his published work touches not only all the continents but also most of the characteristic floral regions of the world. Thus it is that any author who may become intrigued with trying to decipher what Rafinesque meant by a certain name and

description may be handicapped at the beginning by his own lack of detailed knowledge of this or that flora. Examples of the publications that actually apply to most parts of the world are the Flora Telluriana (1837-38), Sylva Telluriana (1838), and Autikon Botanikon (1840). One also encounters many difficulties when one considers works that were basically limited to certain restricted parts of the world, such as the New Flora of North America (1836-38), the Medical Flora; or Manual of the Medical Botany of the United States of North America (1828-30), the Alsographia Americana (1838), and many of his shorter papers published in periodical literature.

#### PROBLEMS OF THE FLORULA LUDOVICIANA

There is one work, however, where important results might accrue if some strategically located botanist interested in field work would make an intensive study of Rafinesque's Florula Ludoviciana; or Flora of the State of Louisiana 1-178. 1817, and Robin's Flore Louisianaise (1807) on which the later Rafinesque work was based. Here one would of necessity have to acquire an intensive knowledge of the present day flora of southern Louisiana. He should attempt to follow Robin's itinerary, collecting here and there in the habitats and at the seasons the latter indicates. Only the southern part of the state and certain adjacent parts of Florida are involved. I have above indicated how well this combination of field knowledge and a study of the original descriptions works out in practice, with the Camp consideration of Adnaria odorata Raf. and Arbutus obtusifolius Raf. mentioned above.

Rafinesque was justly subjected to very severe criticism for publishing his Florula Ludoviciana, and it is, of course, to his distinct discredit that he sponsored such a work. He had no specimens for examination, but had to depend entirely on the rather cursory descriptions of Robin.<sup>53</sup> This was the French text of his Flore Louisianaise, ou Description des Plantes qui ont été observées par l'Auteur, dans ses voyages à Louisiane, classées selon la Méthode de Jussieu. Robin apparently had a reasonably good working knowledge of botany, although Rafinesque did not appear to think so, considering him to have been a mere observer and collector.

Robin arranged his species in accordance with Jussieu's classes and orders, the entries being under their French names, often with a Latin generic name added. It is only occasionally that he also cited binomials, but none of those that he used were new. The work was not planned as a descriptive "flora" but apparently it was the hope of the author that it might be of value to travellers. The descriptions are frankly cursory, sometimes reasonably ample, sometimes short or even very short. Economic uses, if known, are usually indicated. He used Dumont de Courset's Le botaniste cultivateur (1802) as his chief reference work.

<sup>53</sup> Robin, C. C. Voyages dans l'intérieur de la Louisiane, de la Floride occidentale, et dans les îles de la Martinique et de Saint-Domingue. 3: 311-538. 1807.

Probably no botanist who ever lived, other than Rafinesque, would have even dreamed of preparing a descriptive technical flora based wholly on the Robin cursory descriptions, yet this is what Rafinesque unfortunately did. The feeling was so strong against him that his contemporaries apparently refused to recognize the validity of publication of his numerous new genera and new species, for in Robin's work Rafinesque discovered no less than thirty "new genera" and one hundred ninety-six "new species," for which he published technical names. Most of these genera and species have no standing today, other than as synonyms of earlier described entities, as far as Rafinesque's successors have succeeded in determining the status of this or that genus or species. Most of the genera have been accounted for but by no means all of the proposed new species. Some of the new genera, such as Agoseris Raf., Ratibida Raf., Erechtites Raf., and Serinia Raf. and a few of his proposed new species, such as Equisetum praealtum Raf., are currently accepted by all authors.

Rafinesque admits (p. 8) that the work of revision and translation proved to be an arduous task "owing to the numerous misnames and errors of the author, who does not appear to have been a professed Botanist, but a mere observer and collector." With his usual optimism as to new genera and new species still to be discovered in Louisiana he says (p. 4): "should new genera and species exist yet, in the same proportion as in this Florula, more than 100 new genera and 700 new species will repay their [i. e., those who might continue field work in Louisiana] exertions." How fortunate we are that Rafinesque's plea for additional collections of Louisiana plants met with so little response!

He further admitted (p. 8-9) that in some instances Robin provided no descriptions of the plants he mentioned and that in other cases his descriptions were "too short, or not characteristic; it was then merely by presumption, and with doubt that the real names could be cited." Yet he did not hesitate to becloud the issue by proposing new binomials on the slightest pretext. Thus Amorpha tomentosa? Raf. Fl. Ludovic. 105. 1817 is thus characterized: "Amorpha 2, Rob. p. 505. A doubtful species, of which Robin only mentions its being tomentose: probably similar to the foregoing [Amorpha lutea ? Raf.] in other characters"; and for A. lutea Raf. he naïvely observes: "Perhaps not an Amorpha." Robin's whole statement regarding his "Amorpha 2" is "celle-ci est tomenteuse," most certainly a slim basis for a new binomial particularly when we do not even know and cannot prove that the species with which it was compared was even a representative of the genus Amorpha.

## TORREY AND GRAY'S ATTITUDE

As noted above Rafinesque was subjected to very severe and eminently deserved criticism for perpetrating his Florula Ludoviciana. Thus Torrey and Gray, Fl. N. Am. 1: 86. 1838, at the end of their discussion of Cardamine, state: "C. reflexa and C. angustifolia Raf.,

Fl. Ludov., having been founded upon the vague popular descriptions by Robin of plants which Rafinesque never saw, and of which he knew nothing whatever, of course cannot be admitted even to the rank of doubtful species." Here, of course, they erred, for Rafinesque's publications of new genera and new species in this case are just as valid, as to publication, as are those of any author, when, for example, the binomial was based wholly on a pre-Linnaean description. We may heartily approve the Torrey and Gray statement and wish that we might eliminate other Rafinesque enigmas so easily, but we are supposed to follow certain approved rules of procedure.

Rafinesque, two years later, published a review of the first two parts of the Torrey and Gray Flora of North America, Good Book 37-44. 1840. His response to the passage quoted above was that a double error was implied (p. 42):

"I have seen some plants of Robin, and of those not seen, I know a great deal more then some of Linneus, Wil[1]denow, and Decandolle (and even Torrey) not well described, while many of the descriptions of Robin are as good as those of Lamarck, but being in French, they are not understood by english botanists, while my Latin translation in Florula Ludoviciana is overlooked."

Somewhat earlier, *Herb. Raf.* 18. 1833, Rafinesque states:

"I have been reproached wrongly to have published my Florula Ludoviciana out of Robin, without specimens; but Gronovius did so with Clayton [not true!] and Wil[1]denow with Loureiro [Willdenow merely reprinted the Loureiro work without changes]. Robin's herbarium may be seen in Paris. . . I have now some of Robin's plants in my Herbarium, and Dr. Hart found many."

#### DOCTOR CALL'S OPINION

Doctor Call <sup>54</sup> has given this matter some consideration. He says:

"The descriptions of Robin, as he himself states, were all based upon living plants; he made no collections; nor were his notes submitted to any competent botanist. That he actually saw the plants he indicates and to which he gave the French provincial names, is without question the fact, but he nowhere describes these plants technically. Nor is it likely that he possessed the ability to do so. The Latin diagnoses of Rafinesque, therefore, must be regarded as pure fabrications which have neither scientific value nor authority. His book takes its proper place as a literary curiosity; it will, at the same time remain a monument to the most foolish episode in his [Rafinesque's] botanical career."

We may agree with Doctor Call that "taken altogether the volume is a most curious botanical olla podrida." Nevertheless Robin's descriptions, although cursory, are in very many cases sufficient for working botanists to determine from them just what genera and species are involved; and Rafinesque's more technical descriptions, which were based on Robin's cursory ones, remain to be considered by those botanists involved in a study of the flora of Louisiana if systematic botanists continue

<sup>54</sup> Call, R. E. The Life and Writings of Rafinesque 106. 1905. to attempt to account for all published generic names and binomials.

In spite of Call's statement I did attempt, without success, to locate possible Robin specimens. Lasèque records nothing from Robin in the Delessert herbarium, and Doctor F. Gagnepain informs me that neither he nor any of his associates have ever observed any Robin specimens in the Paris herbarium. An actual examination of all of the specimens in certain genera that I suggested to him yielded only negative results. One can only conclude that the proper interpretation of Rafinesque's statement "I have seen some plants of Robin" merely means that he had seen Louisiana specimens collected by others that he identified as representing Robin entities. Robin, Voy. Louis. 3: 321. 1807, says regarding his descriptions: "Elles ont été faites sur les lieux, au milieu des bois et des prairies et toujours en présence de l'objet que je décrivais." There is no evidence in this statement, or elsewhere in his work, that he prepared actual botanical specimens to represent the plants that he described for later study by himself or by anybody else.

In my own attempts to place Rafinesque entities based on Robin's descriptions I had concluded that often, perhaps even usually, one can gain a more definite idea of what Robin was actually trying to characterize from the original French version than from Rafinesque's more technical descriptions based on Robin's cursory ones. I note that Doctor Camp had reached the same conclusion earlier, stating the case thus: "I suggest to those taxonomists who have difficulty in interpreting the material described by Rafinesque in his Florula Ludoviciana, that they refer to the source of these descriptions: Robin Flore Lousianaise. The original French text may convey a more concise concept of the plant than the somewhat abbreviated (or otherwise modified) Latin text of Rafinesque."

The point of this rather long discussion is that some local botanist in Louisiana, or some representative of an out-of-state botanical institution who may become intrigued with this opportunity for productive field work, could here make a distinctly useful contribution to the systematic botany of the United States. This should take the form of a deliberate and intensive study of both the Robin and the Rafinesque descriptions, and in connection with this an appropriate amount of field work at the proper season or seasons in those parts of southern Louisiana and adjacent parts of Florida which were visited by Robin, in an attempt to apply to these Robin-Rafinesque entities the principle of elimination. It is a foregone conclusion that in most cases the Florula Ludoviciana problems posed by Rafinesque's unrealistic work can be solved; but until the necessary field work is accomplished, a considerable number of the Rafinesque names of 1817 must remain in that unsatisfactory category of species incertae sedis.

#### GENERAL SUMMARY

Rafinesque published an inordinate number of poorly prepared papers on descriptive botany, many of which

have been largely ignored by his successors. His work involves the floras of all continents and of the insular areas of both hemispheres. It has been noted that in his various publications there are no less than about 14,400 references to his own genera and species. He proposed more new generic names than any other botanist in the whole history of botanical science, yet only a very small percentage of these, as well as of his very numerous new subgenera or sections, species, and varieties, have ever been recognized by his successors in spite of the, in general, equitable rule of priority. He originated about 2700 new generic names, 335 new subgeneric or sectional names, 6700 new binomials, and 900 new varietal names. Only about 30 of his numerous generic names have been generally accepted, although in recent years those botanists who believe in narrow generic limits have reinstated many additional ones. No less than 90 of Rafinesque's properly published generic names have been eliminated by action of the international botanical congresses in favor of generally used ones proposed by later authors for the same groups. In this index about 70 (or about 160 if we consider proposed generic segregates) additional cases are indicated where Rafinesque generic names could or should be adopted on the basis of strict priority; it is expected that many of these may in the course of time find their places in the official list of rejected names.

A total of about 3300 legitimately published Rafinesque names (740 generic names, 2560 binomials) are not even listed in standard indices. One of the chief reasons for preparing this Index Rafinesquianus is that we do have a homonym rule; hence it is highly desirable that all legitimately published generic names and binomials should be at least listed. One may doubt the propriety of accepting new generic names published within the present century in those cases where it can definitely be shown that Rafinesque proposed and legitimately published a different name for the same group from fifty years to a century or more earlier.

Anyone who attempts to evaluate Rafinesque's botanical work on the basis of a thorough examination of his numerous publications can reach only one conclusion. Briefly this is that it is regrettable that he published so much, and so poorly, on the classification of both plants and animals. He was erratic, nonconformic, contentious, positive of the correctness of his views, highly critical of the work of his contemporaries and some of his predecessors, and with advanced views regarding organic evolution and on the multiplicity of both genera and species. Clearly in some respects he was ahead of his time. His judgment was faulty, he being uncontrolled and uncontrollable. Some of his contemporaries and successors even considered him to be insane. Most of his associates and many of his successors judged his published findings to be so erratic that they were generally ignored. There are undoubtedly those even today who will contend that Rafinesque's descriptive work was so sketchy, incomplete, unfinished, and undocumented, that he should continue to be ignored; I am not of this school. It has been rather brutally observed that it is too bad that Rafinesque did not lose his life in his shipwreck of 1815, in which he lost most of his fortune, his library, herbarium, manuscripts, and notes, all of his accumulations over the preceding two decades. Had this happened modern taxonomists would have been spared the necessity of considering the inordinate number of proposals that Rafinesque made in reference to the classification of both plants and animals and the significance and bearing of the vast number of new names that he published in both botany and zoology. He insisted that posterity would recognize the value of his work, but posterity has been about as harsh in judging this near-genius as were his contemporaries.

Manifestly, working at the time he did on the plants and animals of the then little explored eastern North America, his was the opportunity of equaling or exceeding the standards of the pioneer naturalists who also worked in these fields. That he failed is most manifest. While this volume is based primarily on Rafinesque's work in botany, the net results being in no measure flattering to that strange misguided individual, it seems to be evident that his published work in other fields is just as erratic. In history, in archeology, in comparative philology, in geology, in various fields of descriptive zoology the picture is the same. In certain fields, such as the conchology and ichthyology of the Ohio Valley, his work is basic. But this is due to the fact that he was there the pioneer explorer, and the situation was not confused by much work of earlier specialists; and yet in both of these sciences apparently later specialists ignored his work rather completely and redescribed the Rafinesque genera and species of shells and fishes under other names. On the whole one suspects that most zoologists would agree with the botanists that while we should render to Rafinesque the credit that is due him on the basis of priority in nomenclature, all the descriptive sciences involved would have been better off had Rafinesque published nothing. We cannot undo what has been done in the past; all we can hope to do is to accept, on the basis of priority, Rafinesque's findings when it can positively be determined just what entity he intended by this or that name.

Doctor Call <sup>55</sup> rather admirably summarizes Rafinesque's unrestricted publication efforts of his later years as follows:

"His articles were usually short, and poorly written; he had lost the facile pen of his earlier life. He yet travelled everywhere, and yet collected largely of every thing that grew. He yet kept note-books, yet planned stupendous literary undertakings. Nothing appeared long to receive his undivided attention. He abandoned a subject after brief treatment only to take it up again and complete his observations thereon at another time. Attempting every phase of human thought, writing on almost every subject known to men, planning but never executing, undertaking only to abandon, distrustful always, ever undefatigable, living only to publish, withholding money from necessities that he might present to the world of scholars some new book or pamphlet, what wonder that the literary efforts of this period are estimated to be of little value!"

It is very difficult to evaluate Rafinesque's contributions to knowledge because of the very broad field covered by him. I have, therefore, confined my efforts largely to a consideration of his botanical work. It is to his credit that he strongly supported the natural classification of both plants and animals at a time when all of his contemporaries in the United States still followed the artificial Linnaean system. He fully realized that the number of distinct plant genera was vastly in excess of the approximately 1440 established by Linnaeus. He was distinctly in advance of the times in his ideas regarding organic evolution. He pioneered in educational methods, and was one of the very first advocates of instruction in agriculture by the establishment of colleges of agriculture, first broaching the idea in 1838 in connection with his proposed Central University of Illinois.<sup>56</sup> He pioneered, not too successfully, in American archeology, the comparative philology of Amerindian languages, and pre-Columbian American history. He had some concept of the germ theory of disease. His "divital invention" is the basis of the now very widely used coupon system and a patent was granted to him August 24, 1825, for his "Improvement in the mode of making divitals and preventing forgery." His ideas regarding savings banks were apparently lucid and practicable.

Returning to the field of botany one has only to scan his statement regarding the plant geography of North America <sup>57</sup> to realize that here again he was in the van. Here he distinguished and briefly characterized the Boreal, Canadian, Alleghanian, Floridian, and other major botanical regions of North America, with more local ones such as those of sandy shores, alpine, prairie, and limestone areas, and others. Following the exposition of his ideas on the plant geography of North America is a series of thought-provoking queries as to why there are such striking differences as one notes in comparing various aspects of the North American flora with those of other continents.

One can only conclude that in spite of his numerous faults here was an individual striving to do the best that he could for the benefit of mankind, and one distinctly ahead of the times in which he lived. Perhaps his advanced thinking is an important reason why his contemporaries failed to render proper credit to him for certain of his lucid and manifestly correct conclusions. In his *Life of Travels*, (1836), p. 93, Rafinesque mentions Poulson's 1832 English translation of his work of 1820 on the bivalve shells of the Ohio River and states that the work of other authors who later described the same species as new under their own names without giving him credit was "shameful conduct too much practiced by illiberal vain writers, and from which I have suffered much in Botany and Zoology. But time

<sup>55</sup> Op. cit. 121.

<sup>&</sup>lt;sup>56</sup> Merrill, E. D. C. S. Rafinesque, with Notes on His Publications in the Harvard Libraries. Harvard Libr. Bull. 2: 5-21. 1948 (p. 11-12).

<sup>&</sup>lt;sup>57</sup> Rafinesque, C. S. New Flora of North America 1: 23-28.

renders justice to all at last." One can only conclude, in reference to the last sentence in this quoted passage, that Rafinesque was overoptimistic. Posterity has been about as unappreciative of most of Rafinesque's nomenclatural and other proposals as was contemporaneity. He clearly realized how little his published papers were appreciated by contemporary scientists, and how his nomenclatural proposals were for the most part ignored by them. Pertinent to this situation are the following quoted passages from one of his works published in 1836 58:

"Whatever may yet be my fate, inaction does not suit me. Resigned to the Divine will, I ever act as a Philosopher in doing the best I can. I have already experienced many misfortunes, shipwrecks and losses; I have often been discouraged, but have never dispaired long. I have tryed to serve mankind; but have often met with ungrateful returns. I have tried to enlarge the limits of knowledge; but have often met with jealous rivals instead of friends. I have tried to instruct and enlighten by my writings; but my pen has often been snatched or compelled to be idle for awhile.

"With a greater fortune, or if I had not lost my estate several times by revolutions and shipwreck, I might have imitated

the Humboldt, Linneus, Pallas, Klaproth. . . .

"If I have often gone beyond the actual state of knowledge in my views and opinions, or anticipated on future knowledge, it was with the noble aim of adding my mite to the mental improvement of mankind. If my discoveries and projects have not been speedily admitted, I leave them as a Legacy to those superior minds who will be able to appreciate them, and bestow me the justice often denyed in my days: to the friends of useful sciences, of virtue and peace, to the wise Philanthropists, to the enlightened liberal and impartial men of both hemispheres."

<sup>58</sup> Rafinesque, C. S. A Life of Travels, pp. 113-116. 1836.

## INDEX RAFINESQUIANUS

## THALLOPHYTA<sup>1</sup>

#### ALGAE

ACINARIA Raf. Jour. Phys. Chim. Hist. Nat. 89:107. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 243. 1820, descr.; Am. Monthly Mag. Crit. Rev. 4:208. 1819, nom.; Neogen. 4. 1825, nom.; Merr. Farlowia 1:251. 1943, nom. ? Nitella Agardh (1824), emend. A. Br. (1849).

\*\*Coccifera Raf. Jour. Phys. et Isis von Oken Il.cc., descr.; Merr. l.c., nom. Ohio, Missouri, Mississippi and Red Rivers=? Nitella flexilis Linn. emend. Agardh (1824).

\*flexuosa Raf. Il.cc., descr.; Merr. l.c., nom. Same rivers.
\*latifolia Raf. Il.cc., descr.; Merr. l.c., nom. Same rivers.
\*salicifolia Raf. Il.cc., descr.; Merr. l.c., nom. Same rivers.
\*salicifolia Raf. Il.cc., descr.; Merr. l.c., nom. Same rivers.
AMASPERMA Raf. Précis Découv. Somiol. 47. 1814, descr.;
Jour. Bot. (Desv.) 4:273. 1814, descr.; Anal. Nat. Tabl.
Univ. 209. 1815, nom.; Merr. Farlowia 1:251. 1943, nom.
=? Ceramium Agardh (1817).
\*flocculosa Raf. Jour. Bot. (Desv.) 4:274. 1814, descr. Sicily
=seq.

=seq.

\*floculosa Raf. Précis Découv. Somiol. 1.c., descr.; Merr. 1.c.,

\*\*monilia Raf. Il.cc., descr.; Merr. l.c., nom. Sicily.

\*torulosa Raf. Il.cc., descr.; Merr. l.c., nom. Sicily.

\*ANEVRITON Raf. Speech. Sci. 2:167. 1814, descr.; Anal. Nat. Tabl. Univ. 208. 1815, nom.; Merr. Farlowia 1:251.

1943, nom.

\*marginatum Raf. op. cit. 168, descr.; Merr. 1.c., nom. Sicily.

\*APORENIA Raf. Anal. Nat. Tabl. Univ. 209. 1815, nom.; Merr. Farlowia 1:251. 1943, nom.

ARTHRODIA Raf. Specch. Sci. 1:89. 1814, descr.; Jour. Bot. (Desv.) 1:235. 1814, descr.; op. cit. 4:277 (err. 177). 1814, nom.; Anal. Nat. Tabl. Univ. 209. 1815, nom.; Merr. Farlowia 1:251. 1943, nom.=Roya W. & G. S. West (1896). fide Printz=Closterium Nitzsch. (1817). sensu lat.

(1896), fide Printz=Closterium Nitzsch., (1817), sensu lat.

\*linearis Raf. Il.cc., descr.; Merr. I.c., nom. Sicily.

\*BRYONOPSIS Raf. Speech. Sci. 2:89. 1814, nom. nov. Bryopsis
Lamour.; Merr. Farlowia 1:251. 1943, nom., non Bryon-

opsis Arn. (1841).

\*CALOSPERMUM Raf. ex De Toni, Syll. Alg. 3:938. 1895, nom., sphalm.=Colophermum Raf. (1814)=Ectocarpus

Lyngb. (1819), nom. conserv.

CATENARIA Raf. Med. Repos. II. 5:351. 1808, nom.; Jour. Bot. (Paris) 2:168. 1809, nom.; A. Gray, Am. Jour. Sci. 40:226. 1841, nom.; Merr. Farlowia 1:251. 1943, nom., 1966. Tea. Starph. 1825. pec. Benth... 1852= non Roussel, 1806, nec Sternb., 1825, nec Benth., 1852= Acinaria Targ. (1819).
\*arenaria Raf. 1l.cc., nom.; A. Gray, l.c., nom.; Merr. l.c.,

nom. Eastern United States. \*concatenata Raf. Il.cc., nom.; A. Gray, l.c., nom.; Merr. op.

cit. 252, nom. Eastern United States.
\*vagabunda Raf. 11.cc., nom.; A. Gray, 1.c., nom.; Merr. 1.c., nom. Eastern United States. CERAMIUM Lyngbe.

\*callithamnium Raf. Précis Découv. Somiol. 48. 1814, descr.; Merr. Farlowia 1:252. 1943, nom. Sicily.
\*opacum Raf. l.c., descr.; Merr. l.c., nom. Sicily.
\*squamosum Raf. l.c., descr.; Merr. l.c., nom. Sicily.

CHANTRANSIA DC.

\*dichlora Raf. Précis Découv. Somiol. 47. 1814, descr.; Jour. Bot. (Desv.) 4:273. 1814, descr.; Merr. Farlowia 1:252. 1943, nom. Sicily.

<sup>1</sup> In this Index an asterisk (\*) indicates those genera and binomials that are not entered in standard indices such as Index Kewensis and Index Filicum. The entry "Raf. ex Jacks\*. Ind. Kew." indicates that apparently the name involved was first published in that work. The sign † indicates a correction to Index Kewensis entries, and # that the name involved was published by Rafinesque as of subgeneric or sectional rank, not as a generic name.

CHARA Linn.

\*fetidissima Raf. Med. Repos. II. 5:354. 1808, nom.; Jour. Bot. (Paris) 2:174. 1809, nom.; Merr. Farlowia 1:252. 1943, nom. Central Atlantic United States.

\*patens Raf. Il.cc., nom.; Merr. l.c., nom. Central Atlantic

United States.

United States.

\*CHARACIAS Raf. Anal. Nat. Tabl. Univ. 209. 1815, nom. nov. Chara Linn.; Fl. Tellur. 1:56. 1836 [1837], nom. (Chara Linn.); Merr. Farlowia 1:252. 1943, nom...—Chara Linn. CHLEDIPOLE Raf. Car. Nuov. Gen. Sp. Sicil. 95. 1810, descr.; Merr. Farlowia 1:252. 1943, nom.

\*lobata Raf. l.c., descr.; Merr. l.c., nom. Sicily.

\*tubulosa Raf. l.c. t. 20. f. 10, descr.; Merr. l.c., nom. Sicily.

\*CHLEDRIPOLE Raf. Speech. Sci. 2:167. 1814, nom.; Merr. Farlowia 1:252. 1943, nom.=praec.

COLOPHERMUM Raf. Précis Découv. Somiol. 49, 1814, descr.;

COLOPHERMUM Raf. Précis Découv. Somiol. 49. 1814, descr.; Jour. Bot. (Desv.) 4:275. 1814, descr.; Anal. Nat. Tabl. Univ. 209. 1815, nom.; Merr. Farlowia 1:252. 1943, nom. = Ectocarpus Lyngb. (1819), nom. conserv.

\*floccosum Raf. Il.cc., descr.; Merr. l.c., nom. Sicily.

CONFERVA (Linn.) Lagerh.

\*isacella Raf. Précis Découv. Somiol. 46. 1814, descr.; Jour.

Bot. (Desv.) 4:273. 1814, descr.; Merr. Farlowia 1:252. 1943, nom. Sicily.

\*DELOXUS Raf. Anal. Nat. Tabl. Univ. 208. 1815, nom.; Merr. Farlowia 1:252. 1943, nom.

\*DERAPHYTUS Raf. Anal. Nat. Tabl. Univ. 209. 1815, nom.; Merr. Farlowia 1:209. 1943, nom.

DICTILEMA Raf. Précis Découv. Somiol. 48. 1814, descr.; Jour. Bot. (Desv.) 4:274. 1814, descr.; Anal. Nat. Tabl. Univ. 209. 1815, nom.; Merr. Farlowia 1:252. 1943, nom.= Microdictyon Decaisne (1839), fide Printz.

\*glomerata Raf. Il.cc., descr.; Merr. l.c., nom. Sicily.
\*xanthosperma Raf. Il.cc., descr.; Merr. l.c., nom. Sicily. \*ECPEXIS Raf. Atl. Jour. 1:200. 1833, descr.; Merr. Farlowia

1:252. 1943, nom. \*fluviatilis Raf. l.c., descr.; Merr. l.c., nom. Pennsylvania

(Schuylkill River) \*ECTOSPERMA Raf. Précis Découv. Somiol. 47. 1814, nom.; Jour. Bot. (Desv.) 4:274. 1814, nom.; Merr. Farlowia 1:252. 1943, nom., non Vaucher (1800).

\*longiuscula Raf. Il.cc., descr.; Merr. l.c., nom. Sicily. \*ECTOSPERMIA Raf. Anal. Nat. Tabl. Univ. 209. 1815, nom.;

Merr. Farlowia 1:252. 1943, nom.=praec.

\*ECTOSTERMIA Raf. Fl. Tellur. 1:65. 1836 [1837], nom., sphalm=praec.

\*ENDONEMA Raf. Anal. Nat. Tabl. Univ. 209. 1815, nom.; Merr. Farlowia 1:252. 1943, nom.

ENDOSPERMA Raf. Car. Nuov. Gen. Sp. Sicil. 91. 1810, descr.; Anal. Nat. Tabl. Univ. 208. 1815, nom.; Merr. Farlowia 1:252. 1943, nom.

\*aggregata Raf. l.c., descr.; Merr. l.c., nom. Sicily. \*globosa Raf. l.c., descr.; Merr. l.c., nom. Sicily.

EPISPERMA Raf. Précis Découv. Somiol. 48. 1814, descr.; Jour. Bot. (Desv.) 4:274. 1814, descr.; Merr. Farlowia 1:252. 1943, nom.=Ceramium Agardh (1817).

\*micramnia Raf. Il.cc., descr.; Merr. l.c., nom. Sicily.

\*HELMYTON Raf. Car. Nuov. Gen. Sp. Sicil. 90. 1810, descr.;

Merr. Farlowia 1:252. 1943, nom. Ut videtur=Serpicula
(Vermes) vel Spirobus (Mollusca).

\*glomeratum Raf. l.c., descr.; Merr. l.c., nom. Sicily.
\*spiralis Raf. l.c. t. 20. f. 7, descr.; Merr. l.c., nom. Sicily.

SOPHLIS Raf. Car. Nuov. Gen. Sp. Sicil. 93. 1810, descr.;

Merr. Farlowia 1:252. 1943, nom.

\*concentrica Raf. l.c., t. 20. f. 3, descr.; Merr. l.c., nom. Sicily.

\*LAMINARIA Raf. Med. Fl. 2:221. 1830, nom., nota; Merr. Farlowia 1:253. 1943, nom., non Lamx. (Type Fucus edulis Stackh.).

\*LEIACINA Raf. Neogen. 4. 1825, descr.; Merr. Farlowia 1:253. 1943, nom.=? Tolypella A. Br. (1849). \*capitata Raf. l.c., descr. (Chara capitata Ell.); Merr. l.c.,

nom. Southeastern United States. \*lucida Raf. l.c., descr.; Merr. l.c., nom. [Eastern United

States 1 LEPTORIMA Raf. Car. Nuov. Gen. Sp. Sicil. 94. 1810, descr.; Anal. Nat. Tabl. Univ. 208. 1815, nom.; Merr. Farlowia

Anal. Nat. 1abl. Univ. 200. 1015, nom., Met. 1 and 1:253. 1943, nom.

\*nivea Raf. Car. Nuov. 1.c., descr.; Merr. 1.c., nom. Sicily.

\*oculata Raf. 1.c., descr.; Merr. 1.c., nom. Sicily.

\*undulata Raf. 1.c. t. 20. f. 4, descr.; Merr. 1. c., nom. Sicily.

\*LICHITON Raf. Speech. Sci. 2:168. 1814, descr.; Merr. Farlowia 1:253. 1943, nom.

\*mamillaris Raf. l.c., descr.; Merr. l.c., nom. Sicily.

\*phyteloides Raf. 1.c. descr. (Phytelis tuberculata Raf.); Merr. l.c., nom. Sicily.

\*tuberculata Merr. 1.c., nom., sphalm.=Phytelis tuberculata

Raf. Sicily

MERASPERMA Raf. Med. Repos. II. 3:422. 1806, nom.; cit. 5:350. 1808, descr.; Jour. Bot. (Paris) 2:167. 1809, descr.; Merr. Farlowia 1:253. 1943, nom.=Oxytrema Raf. fide Raf. Jour. Phys. Chim. Hist. Nat. 89:107. 1819; Isis von Oken 1820, 1: Lit. Anz. 243. 1820.

\*bifurcata Raf. Med. Repos. II. 5:350. 1808, nom.; Jour. Bot. (Paris) l.c., nom.; A. Gray, Am. Jour. Sci. 40:226. 1841, nom.; Merr. 1.c., nom. Pennsylvania.

\*cylindrica Raf. Il.cc.; A. Gray, l.c., nom.; Merr. l.c., nom.

Pennsylvania.

\*dichotoma Raf. Med. Repos. II. 3:422. 1806, nom.; op. cit. 5:350. 1808, nom.; A. Gray, I.c., nom.; Jour. Bot. (Paris) 2:167. 1809, nom.; Merr. I.c., nom. Pennsylvania. \*exigua Raf. op. cit. II. 3:422. 1806, nom. Eastern United

States.

\*furcata Raf. l.c., nom. Eastern United States.

\*MESASPERMA Raf. Anal. Nat. Tabl. Univ. 209. 1815, nom.;
Merr. Farlowia 1:253. 1843, nom.=praec.

\*MYRIOSIDRUM Raf. Anal. Nat. Tabl. Univ. 208. 1815, nom.; Merr. Farlowia 1:253. 1943, nom. = seq.

MYRSIDRUM Raf. Car. Nuov. Gen. Sp. Sicil. 97. 1810, descr.; Merr. Farlowia 1:253. 1943, nom.

\*bursa Raf. op. cit. 98, descr. (Alcyonium bursa Linn.); Merr. l.c., nom. Sicily.

\*clavatum Raf. l.c. t. 20. f. 12, descr.; Merr. l.c., nom. Sicily.
\*dilatatum Raf. op. cit. 99, descr.; Merr. l.c., nom. Sicily.
\*effusum Raf. op. cit. 98, descr.; Merr. l.c., nom. Sicily.
\*ramosum Raf. l.c., descr.; Merr. l.c., nom. Sicily.
\*ramosum Raf. l.c., descr.; Merr. l.c., nom. Sicily.

\*vermilaria Raf. I.c., descr. (Lamarckia vermilaria Oliv.; Fucus fungosus Desf.; Ulva tomentosa Linn.; Fucus tomentosus Spach); Merr. l.c., nom. Sicily.

\*NEMALECTRA Raf. Neogen. 4. 1835, descr.; Merr. Farlowia 1:253. 1943, nom.

\*calida Raf. I.c., nom., "in hot springs"; Merr. I.c., nom. [North America].

\*fuscata Raf. l.c., nom.; Merr. l.c., nom. \*plumosa Raf. l.c., nom.; Merr. l.c., nom.

NOSTOCUS Raf. Anal. Nat. Tabl. Univ. 208. 1815, nom. nov. [Nostoc Vauch.]; Merr. Farlowia 1:253. 1943, nom.

[Nostoc Vauch.]; Merr. Farlowia 1:253. 1943, nom.

OPOSPERMUM Raf. Précis Découv. Somiol. 48. 1814, descr.;
Jour. Bot. (Desv.) 4:274. 1814, descr.; Merr. Farlowia 1:253. 1943, nom. = Elachista Duby (1832), nom. conserv.

\*nigrum Raf. Il.cc., descr.; Merr. l.c., nom. Sicily.

ORIMANTHIS Raf. Car. Nuov. Gen. Sp. Sicil. 95. 1810, descr.;
Anal. Nat. Tabl. Univ. 208. 1815, nom.; Merr. Farlowia 1:253. 1943, nom.

\*foliacea Raf. Car. Nuov. l.c., descr.; Merr. l.c., nom. Sicily.

\*vesciculata Raf. l.c., descr.; Merr. l.c., nom. Sicily.

OXYTREMA Raf. Jour. Phys. Chim. Hist. Nat. 89:107. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 243. 1820, descr.; Merr. Farlowia 1:253. 1943, nom. [Merasperma Raf.,

Merr. Farlowia 1:253. 1943, nom. [Merasperma Raf., 18061

 PEXISPERMA Raf. Car. Nuov. Gen. Sp. Sicil. 89. 1810,
 descr.; Anal. Nat. Tabl. Univ. 208. 1815, nom.; Merr.
 Farlowia 1:253. 1943, nom.=Tetraspora Link (1809), fide Printz.

\*amplectens Raf. 1.c., descr.; Merr. 1.c., nom. Sicily.

\*depressa Raf. Précis Découv. Somiol. 46. 1814, descr.; Jour. Bot. (Desv.) 4:273. 1814, descr.; Merr. 1.c., nom. Sicily.

\*dichrosperma Raf. Car. Nuov. Gen. Sp. Sicil. 89. 1810, descr.; Merr. l.c., nom. Sicily. \*lutescens Raf. l.c. t. 20. f. 1, descr.; Merr. l.c., nom. Sicily.

\*sputo Raf. l.c. t. 20. f. 2, descr.; Merr. l.c., nom. Sicily.

\*truncata Raf. l.c., descr.; Merr. l.c., nom. Sicily.
PHAXANTHA Raf. Car. Nuov. Gen. Sp. Sicil. 99. 1810, descr.;
Anal. Nat. Tabl. Univ. 208. 1815, nom.; Merr. Farlowia 1:254. 1943, nom.

\*lichenoides Raf. I.c., descr.; Merr. I.c., nom. Sicily.
PHLYCTIS Raf. Car. Nuov. Gen. Sp. Sicil. 91. 1810, descr.;
Anal. Nat. Tabl. Univ. 208. 1815, nom.; Merr. Farlowia
1:254. 1943, nom. (sphalm. Phylicis).
\*higuratus Raf. op. 61. 22 descr. Merr. I.c. nom. (sphalm.

\*bifurcatus Raf. op. cit. 92, descr.; Merr. 1.c., nom. (sphalm. Phylictis). Sicily.

\*cervicornis Raf. 1.c., descr.; Merr. 1.c., nom. (sphalm. Phylic-

tis). Sicily. \*cuneiformis Raf. 1.c., descr.; Merr. 1.c., nom. (sphalm. Phylictis). Sicily.

\*dichotomus Raf. op. cit. 91, descr.; Merr. 1.c., nom. (sphalm. Phylictis). Sicily.

\*latifolius Raf. op. cit. 92, descr.; Merr. 1.c., nom. (sphalm. Phylictis). Sicily.

\*polypodioides Raf. l.c., descr.; Merr. l.c., nom. (sphalm. Phylictis). Sicily.
\*subfistulosus Raf. l.c., descr.; Merr. l.c., nom. (sphalm.

Phylictis). Sicily.

\*undulatus Raf. 1.c., descr.; Merr. 1.c., nom. (sphalm. Phylicitis). Sicily.

PHORACIS Raf. Car. Nuov. Gen. Sp. Sicil. 99. 1810, descr.;

Anal. Nat. Tabl. Univ. 208. 1815, nom.; Merr. Farlowia

1:254. 1943, nom. = Grateloupia Agardh (1822).

\*filicina Raf. l.c., descr. (Fucus filicinus Jacq.?); Merr. l.c., nom. Sicily.

\*PHYCERUS Raf. Specch. Sci. 2:168. 1814, descr.; Anal. Nat. Tabl. Univ. 209. 1815, nom.; Merr. Farlowia 1:254. 1943, nom.

\*bifdus Raf. Specch. Sci. 1.c., descr.; Merr. 1.c., nom. Sicily.
\*PHYSIDRIA Raf. Fl. Tellur. 1:60. 1836 [1837], nom.=seq.
PHYSIDRUM Raf. Car. Nuov. Gen. Sp. Sicil. 96. 1810, descr.;
Fl. Tellur. 1:56. 65. 1836 [1837], nom.; Merr. Farlowia

1:254. 1943, nom.

\*aggregatum Raf. op. cit. 97, descr.; Merr. l.c., nom. Sicily.

\*hyalinum Raf. l.c., descr.; Merr. l.c., nom. Sicily.

\*pisiforme Raf. op. cit. 96, descr.; Merr. l.c., nom. Sicily.

\*rubescens Raf. op. cit. 97, t. 20. f. 11, descr.; Merr. l.c.,

nom. Sicily.

nom. Sicily.

PHYSOTRIS Raf. Car. Nuov. Gen. Sp. Sicil. 97. 1810, descr.;
Anal. Nat. Tabl. Univ. 208. 1815, nom.; Merr. Farlowia 1:254. 1943, nom.

\*capitata Raf. Précis Découv. Somiol. 46. 1814, descr.;
Jour. Bot. (Desv.) 4:273. 1814, descr.; Merr. Farlowia 1:254. 1943, nom. Sicily.

\*glomerata Raf. Car. Nuov. Gen. Sp. Sicil. 97. 1810, descr.;
Merr. 1c. nom. Sicily.

Merr. l.c., nom. Sicily. \*PHYSUDRUM Raf. Fl. Tellur. 1:34. 1836 [1837], nom.,

sphalm.=Physidrum Raf. PHYSYDRUM Raf. Anal. Nat. Tabl. Univ. 208. 1815, nom.; Merr. Farlowia 1:254. 1943, nom.=Physidrum Raf.

\*PHYTELIS Raf. Car. Nuov. Gen. Sp. Sicil. 93. 1810, descr.;
Anal. Nat. Tabl. Univ. 208. 1815, nom.; Merr. Farlowia
1:254. 1943, nom.

\*atra Raf. op. cit. 94, descr.; Merr. 1.c., nom. Sicily. \*granulata Raf. 1.c., descr.; Merr. 1.c., nom. Sicily.

\*macrocarpa Raf. l.c., descr.; Merr. l.c., nom. Sicily. \*radiata Raf. op. cit. 93, t. 20. f. 5, descr.; Merr. l.c., nom. Sicily.

\*sulcata Raf. op. cit. 94, t. 20. f. 6, descr.; Merr. 1.c., nom. Sicily.

\*tuberculata Raf. l.c. ("tubercolata"), descr.; Merr. l.c., nom. Sicily = Lichiton phyteloides Raf. fide Raf.

PHYXALIUM Raf. Anal. Nat. Tabl. Univ. 208. 1815, nom.;

Merr. Farlowia 1:254. 1943, nom.

\*PLAXARTHRUS Raf. Anal. Nat. Tabl. Univ. 209. 1815, nom.; Merr. Farlowia 1:254. 1943, nom.

\*PORULA Raf. Anal. Nat. Tabl. Univ. 208. 1815, nom.; Merr. Farlowia 1:254. 1943, nom.

POTARCUS Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818, descr.; op. cit. 4:208. 1819, nom.; Jour. Phys. Chim. Hist. Nat. 89:107. 1819, descr.; Isis von Oken 1820, 1: Lit.

Anz. 243. 1820, descr.; Merr. Farlowia 1:254. 1943, nom. \*bicolor Raf. Il.cc., descr.; Merr. l.c., nom. Ohio River. SCLERNAX Raf. Car. Nuov. Gen. Sp. Sicil. 90. 1810, descr.; Anal. Nat. Tabl. Univ. 208. 1815, nom.; Merr. Farlowia 1:254, 1943, nom. \*lutescens Raf. Car. Nuov. Gen. Sp. Sicil. 1.c., nom.; Merr. 1.c., nom. Sicily.

\*\*truncata Raf. l.c., descr.; Merr. l.c., nom. Sicily.

\*\*SIPHORUS Raf. Car. Nuov. Gen. Sp. Sicil. 96. 1810, descr.;
Anal. Nat. Tabl. Univ. 208. 1815 nom.; Merr. Farlowia
1:254. 1943, nom.

\*alternus Raf. Car. Nuov. Gen. Sp. Sicil. l.c. t. 20. f. 9, descr.;
Merr. l.c. nom. Sicily.

\*\*Merr. I.c., nom. Sicily.

\*fasciculatus Raf. l.c., descr.; Merr. I.c., nom. Sicily.

\*SIPHYTUS Raf. Car. Nuov. Gen. Sp. Sicil. 95. 1810, descr.;

Merr. Farlowia 1:255. 1943, nom.

\*filiformis Raf. op. cit. 96, descr.; Merr. I.c., nom. Sicily.

\*hexodon Raf. I.c., descr.; Merr. I.c., nom. Sicily.

\*obconicus Raf. l.c. t. 20. f. 8, descr.; Merr. l.c., nom. Sicily.

SPERMIPOLE Raf. Car. Nuov. Gen. Sp. Sicil. 88. 1810, descr.;

Anal. Nat. Tabl. Univ. 208. 1815, nom.; Merr. Farlowia
1:255. 1943, nom.

\*effusa Raf. Car. Nuov. Gen. Sp. Sicil. 89. 1810, descr.; Merr. l.c., nom. Sicily.

STEREONEMA Raf. Anal. Nat. Tabl. Univ. 209. 1815, nom.; Merr. Farlowia 1:255. 1943, nom.

\*STYPNION Raf. Ann. Nat. Ann. Synop. 16. 1820, descr.; Neogen. 4. 1825, nom. sub. Nemalectra Raf.; A. Gray, Am Jour. Sci. 40:235. 1841, descr.; Merr. Farlowia 1:255 1943. nom.

\*fluitans Raf. Ann. Nat. Ann. Synop. 1.c., descr.; A. Gray, 1.c., descr.; Merr. 1.c., nom. Ohio River.

VAUCHERIA DC.

\*dichotoma Raf. Précis Découv. Somiol. 47. 1814, descr.;
Jour. Bot. (Desv.) 4:274. 1814, descr.; Merr. Farlowia
1:255. 1943, nom. Sicily.
\*flexuosa Raf. ll.cc., descr.; Merr. l.c., nom. Sicily.
\*stricta Raf. ll.cc., descr.; Merr. l.c., nom. Sicily.
\*VERMILARA Raf. Anal. Nat. Tabl. Univ. 20. 1815, nom.;
Merr. Farlowia 1:255. 1943, nom. (Vermilaria).
VOLVOX Vauch

VOLVOX Vauch.

\*bipunctatum Raf. Précis Découv. Somiol. 35. 1814. Sicily. \*fuscus Raf. Specch. Sci. 2:69. 1814, descr.; Merr. Farlowia 1:255. 1943, nom. Sicily.

\*voralis Raf. l.c., descr.; Merr. l.c., nom. Sicily.
\*ZONARIA Raf. Anal. Nat. Tabl. Univ. 208. 1815, nom.;
Merr. Farlowia 1:255. 1943, nom.

#### FUNGI

ACINOPHORA Raf. Med. Repos. II. 3:423. 1806, nom.; op. cit. II. 5:355. 1808, nom.; Jour. Bot. (Paris) 2:176. 1809; nom.; Précis Découv. Somiol. 51. 1814, descr.; Jour. Bot. (Desv.) 4:275. 1814, descr.; Anal. Nat. Tabl. Univ. 211. 1815, nom.; Fischer in Engl. & Prantl, Nat. Pflanzenfam. ed. 2, 7a:119. 1933, gen. dub.; Merr. Farlowia 1:255. 1943, nom. (sphalm. Actinophora Raf.) = Arachnion Schwein. (1822). (1822).

\*aurantiaca Raf. Med. Repos. 11.cc., nom.; Jour. Bot. (Paris) 1.c., nom.; Précis Découv. Somiol. 1.c., descr.; Jour. Bot. (Desv.) 1.c., descr.; Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom.; Merr. Farlowia 1.c., nom. (sphalm. Actino-

phora aurantiaca Raf.). Delaware, Pennsylvania.

ACTIGEA Raf. Précis Découv. Somiol. 52. 1814, descr.; Anal. Nat. Tabl. Univ. 211. 1815, nom.; Med. Fl. 2:222. 1830, nom., nota.; Merr. Farlowia 1:255. 1943, nom.=Scleroderma Pers. fide Saccardo; =? Scleroderma Pers. fide Fischer.

multifida Raf. Précis Découv. Somiol. l.c., descr.; Merr. l.c., nom. New Jersey = Scleroderma flavidum Ell. & Everh. fide Saccardo.

sicula Raf. l.c., descr.; Merr. l.c., nom. Sicily=Scleroderma geaster Fries, fide Saccardo.

ACTIGENA Raf. Jour. Bot. (Desv.) 4:276 (err. 176). 1814, descr.; Merr. Farlowia 1:255. 1943, nom.=praec. \*multifida Raf. 1.c., descr.; Merr. 1.c., nom. New Jersey = Actigea multifida Raf.

\*sicula Raf. 1.c., descr.; Merr. 1.c., nom. Sicily=Actigea

sicula Raf.

\*ACTYCUS Raf. Chloris Aetn. 13. 1815, nom.; Merr. Farlowia 1:255. 1943, nom.

\*siculus Raf. 1.c., nom.; Merr. 1.c., nom. Sicily. AECIDIUM Pers.

\*citrinum Ras. Stat. Gen. Sicil. 28. 1810, nom.; Merr. Farlowia 1:255. 1943, nom. Sicily.

ACTINOPHORA Merr. Farlowia 1:255. 1943, nom.; sphalm.=

Acinophora Raf.

\*aurantiaca Merr. l.c., nom.; sphalm.=Acinophora auran-

tiaca Raf. AEDYCIA Raf. Med. Repos. II. 5:358. 1808, descr.; Jour. Bot. (Paris) 1:222. 1809, descr.; Anal. Nat. Tabl. Univ. 211. 1815, nom.; Merr. Farlowia 1:254. 1943, nom.=

Mutinus Fries (1849), fide Saccardo.

\*alba Raf. Il.cc., descr.; Gerard, Bull. Torr. Bot. Club 12:37.
1885, nom.; Merr. 1.c., nom. Pennsylvania.

\*rubra Raf. Il.cc., descr.; Merr. 1.c., nom. Pennsylvania.

AGARICUS Linn.

\*aterrimus Raf. Jour. Bot. (Desv.) 1:236. 1813, descr.; Merr. Farlowia 1:255. 1943, nom. Delaware=Amanita aterrima Raf.

\*azureus Raf. 1.c., descr.; Merr. 1.c., nom. Delaware=Amanita azurea Raf.

\*casens Raf. Casket 1831:423. 1831, nom., nota; Sat. Eve. Post 10(527):[1]. 1831, nom., nota, sub A. surrectus Raf. \*ellipticus Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818, nom.; Merr. 1.c., nom. Alleghany Mountains or Ohio. \*miptica Raf. in M'Murtrie, Sketch. Louisv. 230. 1819, nom.; Morr. 1.c., nom. (Abdalus, Politicitus, 23). Worteley.

Merr. 1.c., nom. (sphalm.=ellipticus?). Kentucky.

\*surrectus Raf. Casket 1831:423, 1 f. 1831, descr.; Sat. Eve. Post 10(527):[1]. 1f. 1831; Merr. I.c., nom. Philadel-

phia = Volvaria sp.
\*ALVEOLINUS Raf. Anal. Nat. Tabl. Univ. 211. 1815, nom.;
Merr. Farlowia 1:256. 1943, nom.

AMANITA Pers.

\*aterrima Raf. Précis Découv. Somiol. 49. 1814, descr.; Jour. Bot. (Desv.) 4:275. 1814, nom.; Merr. Farlowia 1: 256. 1943, nom. Delaware = Agaricus aterrimus Raf. \*azurea Raf. 11.cc., descr., nom.; Merr. 1.c., nom. Delaware=

Agaricus azureus Raf.

\*ANASTOMARIA Raf. Ann. Nat. Ann. Synop. 16. 1820, descr.; A. Gray, Am. Jour. Sci. 40:235. 1841; Merr. Farlowia 1:256. 1943, nom.

\*campanulata Raf. i.c., descr., A. Gray, i.c., Merr. i.c., nom. New York.

\*dimidiata Raf. 1.c., descr.; A. Gray, 1.c., Merr. 1.c., nom. New York. \*ANNULARIA Raf. Anal. Nat. Tabl. Univ. 211. 1815, nom.; Merr. Farlowia 1:256. 1943, nom.

\*ASTROCITUM Raf. Med. Repos. II. 3:423. 1806, nom.; Merr.

Farlowia 1:256. 1943, nom. = Astrycum Raf. \*dimidiatum Raf. l.c., nom.; Merr. l.c., nom. Pennsylvania, New Jersey=Astrycum dimidiatum Raf.

\*multifidum Raf. 1.c., nom.; Merr. 1.c., nom. Pennsylvania, New Jersey=Astrycum multifidum Raf.

\*quinquefidum Raf. l.c., nom.; Merr. l.c., nom. Pennsylvania, New Jersey = Astrycum quinquefidum Raf.

ASTRYCUM Raf. Med. Repos. II. 5:355. 1808, nom.; Jour. Bot. (Paris) 2:175. 1809, nom.; Merr. Farlowia 1:256. 1943, nom.=Actigea Raf. fide Saccardo.

\*dimidiatum Raf. Il.cc., nom.; Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom.; Merr. 1.c., nom. Pennsylvania, New

\*multifidum Raf. 11.cc., nom.; Gerard, 1.c., nom.; Merr. 1.c., nom. Pennsylvania, New Jersey.

\*quinquefidum Raf. Il.cc., nom.; Merr. l.c., nom. Pennsylvania, New Jersey. BOLETUS Dill.

\*hematoporus Raf. ex M'Murtrie, Sketch, Louisv. 230. 1819, nom.; Merr. Farlowia 1:256. 1943, nom. \*pusillus Raf. Chloris Aetn. 13. 1815, nom.; Merr. 1.c., nom.

CEROPHORA Raf. Med. Repos. II. 5:355. 1808, nom.; Jour. Bot. (Paris) 2:176. 1809, nom.; Précis Découv. Somiol. 49. 1814, descr.; Jour. Bot. (Desv.) 4:275. 1814, descr.; Anal. Nat. Tabl. Univ. 211. 1815, nom.; Merr. Farlowia 1:256. 1943, nom.=Hericium Pers, fide Saccardo. \*capitata Raf. Précis Découv. Somiol. 50. 1814, descr.; Jour.

\*capitata Raf. Precis Decouv. Somiol. 50. 1814, descr.; Jour. Bot. (Desv.) 4:275. 1814, descr.; Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom.; Merr. l.c., nom. New Jersey. \*clavata Raf. Med. Repos. II. 5:355. 1806, nom.; Jour. Bot. (Paris) 2:176. 1809, nom.; Précis Découv. Somiol. 49. 1814, descr.; Jour. Bot. (Desv.) 4:275. 1814, descr.; Gerard, l.c., nom.; Merr. l.c., nom. New Jersey. \*dichotoma Raf. Med. Repos. et Jour. Bot. (Paris) Il.cc., nom.; Gerard, l.c., nom.; Merr. l.c., nom. Central Atlantic

nom.; Gerard, I.c., nom.; Merr. I.c., nom. Central Atlantic

United States.

CEROPHORA (continued).

\*fastigiata Raf. ll.cc., nom.; Merr. l.c., nom. Central Atlantic United States.

\*globosa Raf. Il.cc., nom.; Merr. l.c., nom. Central Atlantic United States.

\*globularis Raf. ex Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom.; Merr. l.c., nom. [Central Atlantic United States].

\*minuta Raf. Med. Repos. et Jour. Bot. (Paris) 11.cc., nom.;

Merr. 1.c., nom. Central Atlantic United States.

\*pyriformis Raf. Il.cc., nom.; Gerard, 1.c., nom.; Merr. 1.c.,
nom. Central Atlantic United States.

\*ramosa Raf. ex Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom.; Merr. l.c., nom. [Central Atlantic United States]. \*thamnoides Raf. Med. Repos. et Jour. Bot. (Paris) Il.cc., nom.; Merr. l.c., nom. Central Atlantic United States.

CLAVARIA Vaill.

\*bicolor Raf. Med. Repos. II. 5:363. 1808, descr.; Jour. Bot. (Paris) 1:233. 1809, descr.; Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom.; Merr. Farlowia 1:256. 1943, nom. 12:37. Virginia.

\*citrina Raf. Med. Repos. op. cit. 262, descr.; Jour. Bot.

(Paris) I.c., descr.; Merr. I.c., nom. Pennsylvania.
\*citrinofusca Raf. Il.cc., descr.; Gerard, I.c. (citrine-fusca),
nom.; Merr. I.c., nom. Pennsylvania.
\*driophylla Raf. Jour. Bot. (Paris) 1:233. 1809, descr.;

Merr. l.c., nom.=seq. \*dryophylla Raf. Med. Repos. II. 5:363. 1808, descr.; Gerard,

\*lepidorhiza Raf. Il.c., nom. Pennsylvania.
\*lepidorhiza Raf. Il.c., descr.; Merr. l.c., nom. Maryland.
\*oxantha Raf. Jour. Bot. (Desv.) 1:237. 1813, descr.; op. cit. 4:276 (err. 176). 1814, nom.; Précis Découv. Somiol.

51. 1814, descr.; Merr. 1.c., nom. Maryland.
\*rubescens Raf. Il.cc., descr.; Merr. 1.c., nom. Pennsylvania.
\*tricolor Raf. Il.cc., descr.; Gerard, Bull. Torr. Bot. Club
12:37. 1885, nom.; Merr. 1.c., nom. Maryland.

COLONNARIA Raf. Med. Repos. II. 3:423. 1806, nom.; op. cit. II. 5:355. 1808, descr.; Jour. Bot. (Paris) 2:176. 1809, descr.; Merr. Farlowia 1:257. 1943, nom.; op. cit. 249-250, nota=Clathrus Mich. fide Saccardo; genus validus fide Fischer in Engl. & Prantl, Nat. Pflanzenfam. ed. 2, 7a: 84. 1933 (*Linderia* G. H. Cunningham, 1931). truncata Raf. Il.cc., nom.; Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom.; Merr. I.c., nom. Pennsylvania = Clathrus

truncatus Bosc, fide Saccardo. urceolata Raf. Il.cc., nom.; Gerard, l.c., nom.; Merr. l.c., nom. Pennsylvania = Clathrus columnatus Bosc, fide Saccardo.

\*CYATHELA Raf. Am. Monthly Mag. Crit. Rev. 4:208. 1819, nom.; Merr. Farlowia 1:257. 1943, nom. 
\*CYATHELLA Raf. Anal. Nat. Tabl. Univ. 211. 1815, nom.; Fl. Tellur. 1:56. 1836 [1838], nom.; Merr. Farlowia 1: 257. 1943, nom.

\*CYNICUS Raf. Anal. Nat. Tabl. Univ. 211. 1815, nom.; Merr. Farlowia 1:257. 1943, nom.

\*DEDALEA Raf. Anal. Nat. Tabl. Univ. 211. 1815, nom.; Med. Fl. 2:201. 1830, nom.; Merr. Farlowia 1:257. 1943, nom.=Daedalea Pers.

DICARPHUS Raf. Med. Repos. II. 3:423. 1806, nom.; op. cit.
II. 5:355. 1808, nom. subnud.; Jour. Bot. (Paris) 2:176.
1809, nom. subnud.; Speech. Sci. 1:194. 1814, descr.; Anal.
Nat. Tab. Univ. 211. 1815, nom.; Merr. Farlowia 1:275. 1943, nom.=Hydnum Linn., fide Saccardo. \*rubens Raf. ll.cc., nom.; Specch. Sci. 1:195. 1814, descr.;

Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom.; Merr.

1.c., nom. Pennsylvania.

\*DICTERIDIUM Raf. Anal. Nat. Tabl. Univ. 211. 1815, nom.;

Merr. Farlowia 1:257. 1943, nom.

DRUPARIA Raf. Med. Repos. II. 5:358. 1808, descr.; Anal. Nat. Tabl. Univ. 211. 1815, nom.; Merr. Farlowia 1:257. 1943, nom. = Drupasia Raf.

\*globosa Raf. Med. Repos. II. 5:358. 1808, descr.; Merr.

1.c., nom. Pennsylvania.

\*rosea Raf. 1.c., descr.; Merr. 1.c., nom. Delaware.

\*violacea Raf. 1.c., descr.; Merr. 1.c., nom. Pennsylvania.

\*volvacea Raf. ex Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom.; Merr. 1.c., nom.

DRUPASIA Raf. Jour. Bot. (Paris) 1:223. 1809, descr.; Merr. Farlowia 1:257. 1943, nom.=praec.=gen. dub. fide Fischer in Engl. & Prantl, Nat. Pflanzenfam. ed. 2, 7a:119. 1933. \*globosa Raf. 1.c., descr.; Merr. 1.c., nom. Pennsylvania.

\*rosea Raf. 1.c., descr.; Merr. 1.c., nom. Delaware.

\*violacea Raf. I.c., descr.; Merr. I.c., nom. Pennsylvania. **DYCTICIA** Raf. Med. Repos. II. 5:355. 1808, nom.; Jour.

Bot. (Paris) 2:176. 1809, nom.; Merr. Farlowia 1:257.

1943, nom.=Clathrus Pers. fide Saccardo; ? fide Fischer.

\*clathroides Raf. Il.cc., nom. subnud.; Merr. l.c., nom. Delaware.

ENDACINUS Raf. Précis Découv. Somiol. 51. 1814, descr.; Jour. Bot. (Desv.) 4:276 (err. 176). 1814, descr.; Ann. Nat. Tabl. Univ. 211. 1815, nom.; Merr. Farlowia 1:257. 1943, nom.=Polysaccum DC. & Desf. fide Saccardo= Pisolithus Alb. & Schwein. (1805).

tinctorius Raf. Précis et Jour. Bot. 11.cc., descr.; Merr. 1.c., nom. Sicily=Polysaccum pisocarpum Fries, fide Saccardo

=Pisolithus tinctorius (Pers.) Coker.

\*ENDAEMATUS Raf. Specch. Sci. 2:105. 1814, descr.; Merr. Farlowia 1:257. 1943, nom. \*albus Raf. l.c., descr.; Merr. l.c., nom. Sicily.

\*ENDEMATUS Raf. Anal. Nat. Tabl. Univ. 207. 1815, nom.; Merr. Farlowia 1:257. 1943, nom.=Endaematus Raf.

ENDOCONIA Raf. Jour. Phys. Chim. Hist. Nat. 89:106. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 243. 1820, descr.; Merr. Farlowia 1:257. 1943, nom.=Hymomyceteae, gen. incert. fide Saccardo.

\*leucomela Raf. ll.cc., descr.; Merr. l.c., nom. Kentucky. \*stuposa Raf. ll.cc., descr.; Merr. l.c., nom. New York. \*ENDONIUS Raf. Am. Monthly Mag. Crit. Rev. 4:208. 1819, nom.; Merr. Farlowia 1:257. 1943.

\*EPIXYLA Raf. Med. Repos. II. 3:423. 1806, nom.; Merr. Farlowia 1:258. 1943, nom.

\*clavata Raf 1.c., nom.; Merr. 1.c., nom. Eastern United

\*cylindrica Raf. l.c., nom.; Merr. l.c., nom. Central Eastern United States.

\*lineata Raf. 1.c., nom.; Merr. 1.c., nom. Central Eastern United States.

ERIOSPERMA Raf. Med. Repos. II. 5:356. 1808, nom. subnud.;
Jour. Bot. (Paris) 2:177. 1809, nom. subnud.; Merr.
Farlowia 1:258. 1943, nom.
\*alba Raf. Il.cc., nom.; Merr. l.c. nom. Pennsylvania.
\*fugax Raf. Il.cc., nom.; Merr. l.c., nom. Pennsylvania.

\*EUDACNUS Raf. ex Merr. Farlowia 1:258. 1943, nom., sphalm.=Endacinus Raf.

\*FAVARIA Raf. Anal. Nat. Tabl. Univ. 211. 1815, nom.; Merr. Farlowia 1:258. 1943, nom.

GELATINA Raf. Med. Repos. II. 3:423. 1806, nom.; op. cit. 5:356. 1808, descr.; Jour. Bot. (Paris) 2:177. 1809, descr.; Merr. Farlowia 1:258. 1943, nom.=Tremella Dill. fide Saccardo.

\*alba Raf. Med. Repos. II. 5:356. 1808, nom.; Jour. Bot. 1.c., nom.; Merr. 1.c., nom. Eastern United States.

\*aurantiaca Raf. Med. Repos. II. 3:423. 1806, nom.; Merr. I.c., nom. Eastern United States.

\*candida Raf. 1.c., nom.; Merr. 1.c., nom. Eastern United States

\*flava Raf. 1.c., nom.; Merr. 1.c., nom. Eastern United States.
\*foetidissima Raf. op. cit. II. 5:356. 1808, nom.; Jour. Bot.
(Paris) 2:177. 1809, nom.; Merr. 1.c., nom. Eastern United States.

\*lutea Raf. 11.cc., nom.; Merr. 1.c., nom. Eastern United States.

\*rubra Raf. Med. Repos. II. 3:423. 1806, nom.; op. cit. 5:356. 1808, nom.; Jour. Bot. (Paris) 2:177. 1809, nom.; Merr. I.c., nom. Eastern United States.

\*GELATINARIA Raf. Anal. Nat. Tabl. Univ. 211. 1815, nom.; Merr. Farlowia 1:258. 1943, nom.; non Roussel (1806).

GEMMULARIA Raf. Jour. Phys. Chim. Hist. Nat. 89:106.
1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 243. 1820,
descr.; Med. Fl. 2:270. 1830, nom. alt. Tucahus Raf.; Atl. Jour. 1:181. 1833, nom. alt. Tucahus Raf.; Merr. Farlowia 1:258. 1943, nom.=Tucahus Raf. (1830)=Rugosaria Raf.

(1833) = Pachyma Fries (1823). \*albida Raf. Atl. Jour. 1:182. 1833, descr.; nom. alt. Tucahus albidus Raf.; Merr. 1.c., nom. Pennsylvania, Ohio,

Kentucky. \*leviuscula Raf. Jour. Phys. Chim. Hist. Nat. 89:106. 1819, descr.; Isis von Oken 1: Lit. Anz. 243. 1820, descr.; Atl. Jour. 1:181. 1833, nom. alt. Tucahus leviusculus Raf.; Merr. l.c., nom. Virginia, Kentucky.
\*rimosa Raf. Atl. Jour. 1:181. 1833, descr.; nom. alt. Tucahus rimosus Raf.; Merr. l.c., nom. Virginia, North Carolina.

\*rugosa Raf. Jour. Phys. Chim. Hist. Nat. 89:106. 1819. descr.; Isis von Oken 1820, 1: Lit. Anz. 243. 1820, descr.; Atl. Jour. 1:181. 1833, nom. alt. Tucahus rugosus Raf.;

Merr. I.c., nom. Maryland, South Carolina.
\*GEOGLOSSUM Raf. Anal. Nat. Tabl. Univ. 211. 1815, nom.; Merr. Farlowia 1:258. 1943, nom. (an Geoglossum Pers.?). \*GYMNOPUS Raf. Anal. Nat. Tabl. Univ. 211. 1815, nom.; Merr. Farlowia 1:258. 1943, nom. (an Gymnopus Pers.?).

HECTOCERUS Raf. Med. Repos. II. 3:423. 1806, nom.; Merr. Farlowia 1:258. 1943, nom. = Hericium Pers. fide Saccardo. \*clavatus Raf. 1.c., nom.; Merr. 1.c., nom. Central Atlantic

United States

\*dichotomus Raf. l.c., nom.; Merr. l.c., nom. Central Atlantic United States.

\*globosus Raf. 1.c., nom.; Merr. 1.c., nom. Central Atlantic United States \*pyriformis Raf. l.c., nom.; Merr. l.c., nom. Central Atlantic United States.

\*thamnoides Raf. 1.c., nom.; Merr. 1.c., nom. Central Atlantic

United States.

HEPATARIA Raf. Med. Repos. II. 5:350. 1808, nom.; Jour. Bot. (Paris) 2:168. 1809, nom.; A. Gray, Am. Jour. Sci. 40:226. 1841, nom.; Merr. Farlowia 1:258. 1943, nom.=
Tremella Dill. vel aff. fide Saccardo.

\*cuneata Raf. Il.cc., nom.; A. Gray, l.c., nom.; Merr. l.c., nom. Central Atlantic United States.

\*erecta Raf. Il.cc., nom.; A. Gray, l.c., nom.; Merr. l.c., nom. Central Atlantic United States.

**HERICIUM** Pers.

\*grande Raf. Jour. Bot. (Desv.) 1:236. 1813, descr.; Précis Découv. Somiol. 50. 1814, descr.; Jour. Bot. (Desv.) 4:276 (err. 176). 1814, nom.; Merr. Farlowia 1:258. 1943, nom. New Jersey.

HYDNUM Linn.

\*aurantinum Raf. Précis Découv. Somiol. 50. 1814, descr.; Merr. Farlowia 1:258. 1943, nom. Delaware == seq. \*aurantium Raf. Jour. Bot. (Desv.) 1:237. 1813, descr.; op. cit. 4:276 (err. 176). 1814, nom.; Merr. 1.c., nom. Delaware. barbatum Raf. Med. Repos. II. 5:363. 1808, descr.; Jour. Bot. (Paris) 1:224 Bot. (Paris) 1:234. 1809, descr.; Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom.; Merr. l.c., nom. Delaware. caerulescens Raf. Il.cc., descr.; Gerard, l.c., nom. (cerulescens); Merr. l.c., nom. New Jersey=Hydnum sp. dub.

fide Saccardo.

citrinum Raf. 11.cc., descr.; Gerard, l.c., nom.; Merr. 1.c., nom. Pennsylvania.

dilatatum Raf. 11.cc., descr.; Gerard, 1.c., nom.; Merr. 1.c., nom. Pennsylvania.

\*puniceum Raf. Jour. Bot. (Desv.) 1:237. 1813, descr.;
Précis Découv. Somiol. 50. 1814, descr.; Jour. Bot. (Desv.)

4:276 (err. 176). 1814, nom.; Merr. 1.c., nom. Delaware. HYDROMYCUS Raf. Med. Repos. II. 5:356. 1808, nom. subnud.; Jour. Bot. (Paris) 2:178. 1809, nom. subnud.; Merr. Farlowia 1:259. 1943, nom.=Dacryomyces Nees (1821) fide Saccardo.

\*aquosus Raf. 11.cc., nom.; Merr. 1.c., nom. New Jersey, Pennsylvania.

\*tremelloides Raf. 11.cc., nom.; Merr. 1.c., nom. New Jersey, Pennsylvania.

HYPOLEPIA Raf. Med. Repos. II. 5:356. 1808, nom. subnud.; Jour. Bot. (Paris) 2:178. 1809, nom. subnud.; Merr. Farlowia 1:259. 1943, nom. = Dacryomyces Nees (1821) fide Saccardo.

\*difformis Raf. Il.cc., nom.; Merr. l.c., nom. Central Atlantic United States.

\*igniarias Raf. Med. Repos. II. 5:356. 1808, nom.; Merr. 1.c., nom. Central Atlantic United States = seq.

\*ignarius Raf. Jour. Bot. (Paris) 2:178. 1809, nom.; Merr. l.c., nom. Central Atlantic United States.

ISARIA Pers.

\*odora Raf. Jour. Bot. (Desv.) 1:237. 1813, descr.; Précis Découv. Somiol. 51. 1814, descr.; Jour. Bot. (Desv.) 4:276 [err. 176]. 1814, nom.; Merr. Farlowia 1:259. 1943, nom. Maryland.

LAMYXIS Raf. Ann. Nat. Ann. Synop. 16. 1820, nom. nov. provis., sub Sisostrema; Merr. Farlowia 1:259. 1943, nom.

LEPTOPORA Raf. Med. Repos. II. 5:355.. 1808, descr.; Jour. Bot. (Paris) 2:177. 1809, descr.; Merr. Farlowia 1:259. 1943, nom.=Poria Pers. fide Saccardo.

\*difformis Raf. 11.cc., nom.; Merr. 1.c., nom. Central Atlantic

United States.

\*nivea Raf. 11.cc., nom.; Merr. 1.c., nom. Central Atlantic United States.

\*stercoraria Raf. 11.cc., nom.; Merr. 1.c., nom. Central Atlantic United States.

LYCOPERDON Pers.

\*coccineum Raf. Jour. Bot. (Desv.) 1:237. 1813, descr.; Précis Découv. Somiol. 51. 1814, descr.; Jour. Bot. (Desv.) 4:276. (err. 176). 1814, nom.; Merr. Farlowia 1:259. 1943, nom. Delaware.

\*violacinum Raf. Jour. Bot. (Paris) 4:276 (err. 176). 1814 (Lycoperdum), nom. in syn. sub Omalycus violacinus Raf.; Merr. l.c., nom. Pennsylvania. MERULIUS Pers.

\*undulatus Raf. Jour. Bot. (Desv.) 1:237. 1813, descr.; op. cit. 4:276 (err. 176). 1814, nom.; Précis Découv. Somiol. 50. 1814, descr.; Merr. Farlowia 1:259. 1943, nom. Maryland

MORCHELLA Dill.

\*\*MORCHELLA Dill.

\*\*cava Raf. Car. Nuov. Gen. Sp. Sicil. 88. 1810, descr.; Stat. Gen. Sicil. 28. 1810, nom.; Chloris Aetn. 14. 1815, nom.; Merr. Farlowia 1:259. 1943, nom. Sicily.

\*\*odorata Raf. Fl. Ludovic. 12. 1817, descr. (Morille Rob. Voy. Louis. 3:327. 1807); Merr. 1.c., nom. Louisiana.

MYCASTRUM Raf. Jour. Bot. (Desv.) 1:236. 1813, descr.; Merr. Farlowia 1:259. 1943, nom.=Omalycus Raf. fide Desv. op. cit. 4:276 (err. 176). 1814=Actigea Raf. fide

Desv. op. cit. 4:276 (err. 176). 1814=Actigea Raf. fide Saccardo.

\*siculum Raf. l.c., descr.; Merr. l.c., nom. Sicily.

\*NIDULARIA Raf. Anal. Nat. Tabl. Univ. 211. 1815, nom.;
Merr. Farlowia 1:259. 1943, nom. (=? Nidularia Fries, 1817)

\*ODONTIUM Raf. Am. Monthly Mag. Crit. Rev. 1:429. 1817, nom. sub Hydnum chrysorhizon Torr. ex Eaton, Man. 140. 1817 (Hydnum Linn. sect. Odontia Pers.) = Odontia (Pers.) Hennings (1897)

OMALYCUS Raf. Précis Découv. Somiol. 52. 1814, descr.; Anal. Nat. Tabl. Univ. 211. 1815, nom.; Merr. Farlowia 1:259. 1943, nom.=Scleroderma Pers. fide Saccardo. \*erosus Raf. Précis Découv. Somiol. 52. 1814, nom. nov. Lycoperdon complanatum Desv.; Jour. Bot. (Desv.) 4:276

(err. 176). 1814, nom. (Lycoperdon complanatum Desv.); Merr. 1.c., nom.

Merr. 1.c., nom. violacinus Raf. Il.cc., descr.; nom. (sphalm. Lycopodium); Merr. 1.c., nom. Pennsylvania=Scleroderma violacinum De Toni, fide Saccardo.

\*ONYGENA Raf. Anal. Nat. Tabl. Univ. 211. 1815, nom.; Merr. Farlowia 1:260. 1943 (an Pers. ?).

PEZIZA Dill.

\*alborufa Raf. Med. Repos. II. 5:362. 1808, descr.; Jour. Bot. (Paris) 1:232. 1809, descr.; Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom.; Merr. Farlowia 1:260. 1943, nom. Penn-

\*atrata Raf. Med. Repos. 1.c. (attrata) et Jour. Bot. (Paris)
1.c., descr.; Merr. 1.c., nom. Pennsylvania, New Jersey.
\*cupularia Raf. Med. Repos. 1.c., descr.; Merr. 1.c., nom.

\*cupularia Rai. Med. Repos. I.C., descr., lact. I.C., Delaware = seq.

\*cupularis Raf. Jour. Bot. (Paris) 1:232. 1809, descr.;

Merr. 1.c., nom. Delaware.

\*depressa Raf. Med. Repos. et Jour. Bot. (Paris) 11.cc., descr.; Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom.; Merr. 1.c., nom. Pennsylvania.

\*globulosa Raf. Il.cc., descr.; Gerard, 1.c., nom.; Merr. 1.c., nom. Pennsylvania.

nom. Pennsylvania.

\*Iupularia Raf. ex Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom.; Merr. l.c., nom. [Eastern United States].
\*ochrochlora Raf. Med. Repos. et Jour. Bot. (Paris) Il.cc., descr.; Gerard, l.c., nom.; Merr. l.c., nom. New Jersey.
\*pulcherrima Raf. Il.cc., descr.; Gerard, l.c., nom.; Merr. l.c.,

\*smaragdina Raf. Jour. Bot. (Paris) 1:232. 1809, descr.; Merr. 1.c., nom. Pennsylvania.

\*smeraldina Raf. Med. Repos. II. 5:362. 1808, descr.; Gerard, l.c., nom. (smiraldina); Merr. l.c., nom. Pennsylvania= praec.

\*PHERIMA Raf. Am. Monthly Mag. Crit. Rev. 4:208. 1819, nom.; Merr. Farlowia 1:260. 1943, nom.=Phorima Raf. (1806, 1808).

\*PHIALA Raf. Anal. Nat. Tabl. Univ. 211. 1815, nom.; Merr. Farlowia 1:260. 1943, nom.

PHIALOSPORA Raf. Loud. Gard. Mag. 8:248. 1832, nom. nov. Cucurbitaria Gray, iter. Schlecht. Linnaea 8: Lit.-Ber. 73. 1833, iter. Britten, Jour. Bot. 38:228. 1900.

PHORIMA Raf. Med. Repos. II. 3:423. 1806, nom.; op. cit. 5: 355. 1808, descr.; Précis Découv. Somiol. 49. 1814, descr. 355. 1808, descr.; Précis Découv. Somiol. 49. 1814, descr.; Jour. Bot. (Desv.) 4:275. 1814, descr.; Anal. Nat. Tabl. Univ. 211. 1815, nom.; Med. Fl. 2:201. 1830, nom.; Loud. Gard. Mag. 8:248. 1832, nom., nota, iter. Schlecht. Linnaea 8: Lit.-Ber. 73. 1833, iter. Britten, Jour. Bot. 38:228. 1900; Fl. Tellur. 1:34. 1836 [1837], nom.; Merr. Farlowia 1:260. 1943, nom.=Favolus Beauv. (1805) fide Desvaux, Jour. Bot. (Desv.) 4:275. 1814 (non Favolus Fries 1821). \*betulina Raf. Med. Repos. Il.cc., nom.; Jour. Bot. (Paris) 2:177. 1809, nom.; Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom.; Merr. l.c.; nom. Central Atlantic United States. \*boletoides Raf. Med. Repos. II. 3:423. 1806, nom.; Merr. l.c., nom. Central Atlantic United States. \*concinea Raf. op. cit. II. 5:355. 1808. nom.; Jour. Bot.

\*coccinea Raf. op. cit. II. 5:355. 1808, nom.; Jour. Bot. (Paris) 2:177. 1809, nom.; Merr. l.c., nom. Central At-\*difformis Raf. op. cit. II. 3:423. 1806, nom.; Merr. 1.c., nom.

Central Atlantic United States.

\*minuta Raf. op. cit. II. 5:355. 1808, nom.; Jour. Bot. (Paris) 2:177. 1809, nom.; Précis Découv. Somiol. 49. 1814, descr.; Jour. Bot. (Desv.) 4:275. 1814, descr.; Merr. 1.c., nom. Central Atlantic United States.

\*PHYLLOPS Raf. Fl. Ludovic. 172. 1817, nom.; Merr. Farlowia

1:260. 1943, nom. Louisiana.

PIEMYCUS Raf. Jour. Bot. (Desv.) 1:236. 1813, nom., nota, subgen. Mycastrum Raf. (Type Lycoperdon complanatum Desf.); Merr. Farlowia 1:260. 1943, nom.=seq.

PIESMYCUS Raf. Med. Repos. II. 5:355. 1808, descr.; Jour. Bot. (Paris) 2:176. 1809, descr.; Merr. Farlowia 1:260. 1943, nom.=Lycoperdon Pers. fide Saccardo; gen. dub. fide Fischer.

\*nigrescens Raf. 11.cc., nom.; Merr. 1.c., nom. Central Atlantic

United States.

\*violaceus Raf. Il.cc., nom.; Merr. l.c., nom. Central Atlantic United States.

\*POLYSTEMA Raf. Anal. Nat. Tabl. Univ. 211. 1815, nom.; Merr. Farlowia 1:260. 1943, nom.

\*PORONEA Raf. Anal. Nat. Tabl. Univ. 207. 1815, nom.; Merr. Farlowia 1:260. 1943, nom.

PRIAPUS Raf. Med. Repos. II. 3:423. 1806, nom.; op. cit. 5:355. 1808, nom. subnud.; Jour. Bot. (Paris) 2:176. 1809, nom. subnud.; Merr. Farlowia 1:260. 1943, nom.= Phallus Linn. vel aff. fide Saccardo.

\*niveus Raf. 11.cc., nom., nom. subnud.; Merr. 1.c., nom. Vir-

\*PYRENIUM Raf. Anal. Nat. Tabl. Univ. 211. 1815, nom.;

Merr. Farlowia 1:260. 1943, nom.

PYRISPERMA Raf. Med. Repos. II. 3:423. 1806, nom.; op. cit. 5:355. 1808, nom. subnud.; Jour. Bot. (Paris) 2:177. 1809, nom. subnud. = Tuber Mich. vel aff. fide Saccardo. \*hypogea Raf. Il.cc., nom. New Jersey.

\*RAMARIA Raf. Anal. Nat. Tabl. Univ. 211. 1815, nom.;

Merr. Farlowia 1:260. 1943, nom. (an Pers. ?).
RIELLA Raf. ex Léveillé in Orb. Dict. Univ. Hist. Nat. 8:488. 1849; Saccardo, Syll. Fung. **15**:323. 1901, *nom.* in syn.; Merr. Farlowia 1:261. 1943, *nom.*, *nota*=seq. fide Saccardo

RIMELLA Raf. Am. Monthly Mag. Crit. Rev. 4:208. 1819, nom.; Jour. Phys. Chim. Hist. Nat. 89:106. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 243. 1820, descr.; Merr. Farlowia 1:261. 1943, nom.=Tylosma Pers. vel aff. fide

\*obovalis Raf. Jour. Phys. Chim. Hist. Nat. 1.c., descr.; Isis von Oken 1.c., descr.; Merr. 1.c., nom. Virginia and

along the Ohio River.

\*ROTULA Raf. Anal. Nat. Tabl. Univ. 211. 1815, nom.; Merr. Farlowia 1:261. 194 Rotula DC. 1805?). 1943, nom. (An Agaricus Linn., sect.

\*RUGOSARIA Raf. Atl. Jour. 1:181. 1833, nom. alt. Gemmularia Raf., Merr. Farlowia 1:261. 1943, nom.=Gemmularia Raf. (1819)=Tucahus Raf. (1830)=Pachyma Fries (1833).

\*SARCANTHIA Raf. Fl. Ludovic. 172. 1817, nom.; Merr. Farlowia 1:261. 1943, nom.

\*SARCOMELAS Raf. Fl. Ludovic. 172. 1817, nom.; Merr. Farlowia 1:261. 1943, nom. Louisiana.

SARCONEMUS Raf. Anal. Nat. Tabl. Univ. 210. 1815, nom.; Merr. Farlowia 1:261. 1943, nom.; gen. omn. incert. fide

\*SISOSTREMA Raf. Ann. Nat. Ann. Synop. 16. 1820, nom. Ut viditer sphalm.=Sistotrema Pers. (1797)

\*globularis Raf. Ann. Nat. Ann. Synop. 16. 1820, descr.; Merr. Farlowia 1:261. 1943, nom. New York.

\*SPHEROPSIS Raf. Anal. Nat. Tabl. Univ. 207. 1815, nom. nov. Sphaeria Pers.; Merr. Farlowia 1:261. 1943, nom. STEMASTRUM Raf. Med. Repos. II. 5:355. 1808, nom. subnud.; Jour. Bot. (Paris) 2:177. 1809, nom. subnud.; Merr. Farlowia 1:261. 1943, nom.=Geaster Mich. vel aff. fide Saccardo.

\*boscii Raf. 11.cc., nom. subnud.; Merr. 1.c., nom. Virginia. STERICIUM Raf. Am. Monthly Mag. Crit. Rev. 4:208. 1819, nom.; Merr. Farlowia 1:261. 1943, nom.

STIPIZA Raf. Ann. Nat. Tabl. Univ. 211. 1815, nom.; Merr. Farlowia 1:261. 1943, nom.

TETENA Raf. Med. Repos. II. 3:423. 1806, nom. Prob.= Aedicia Raf.

\*alba Raf. 1.c., nom. Central Eastern United States. \*rubra Raf. 1.c., nom. Central Eastern United States.

THELEPHORA Ehrh.

\*aurantiaca Raf. Med. Repos. II. 5:363. 1808, descr.; Jour. Bot. (Paris) 1:233. 1809, descr.; Merr. Farlowia 1:261. 1943, nom. Central Atlantic United States.

\*nigrescens Raf. Jour. Bot. (Desv.) 1:237. 1813, descr.; Précis Découv. Somiol. 50. 1814, descr.; Jour. Bot. (Desv.) 4:276 (err. 176). 1814, nom.; Merr. 1.c., nom. Pennsylvania.

\*revoluta Raf. Jour. Bot. (Desv.) et Précis, 11.cc., descr.; Jour. Bot. (Desv.) 4:276 (err. 176). 1814, nom.; Merr.

1.c., nom. Pennsylvania.

\*semicampanulata Raf. Med. Repos. II. 5:363. 1808; Jour. Bot. (Paris) 1:233. 1809, descr.; Merr. l.c., nom. Pennsyl-

\*TRICHIDIUM Raf. Anal. Nat. Tabl. Univ. 211. 1815, nom. nov. Trichia Hall.; Merr. Farlowia 1:261. 1943, nom.

TUBER (Micheli) Pers.

\*rufescens Raf. Jour. Bot. (Paris) 1:235. 1813, nom.; Précis Découv. Somiol. (p. 3 of cover), nom.; Merr. Farlowia 1:261. 1943, nom.

\*TUBERIUM Raf. Anal. Nat. Tabl. Univ. 211. 1815, nom. nov. Tuber (Micheli) Pers.; Merr. Farlowia 1:261. 1943,

nom.

\*TUCAHUS Raf. Med. Fl. 2:270. 1830, descr.; Atl. Jour. 1: 181. 1833, descr.; Merr. Farlowia 1:261. 1943, nom. = Gemmularia Raf. (1819) = Rugosaria Raf. (1833), fide Raf. = Pachyma Fries (1823).

\*albidus Raf. Med. Fl. l.c., nom.; Atl. Jour. 1:182. 1833, descr.; Merr. l.c., nom. Pennsylvania, Ohio, Kentucky. \*leviusculus Raf. Il.cc., nom., descr.; Merr. l.c., nom. Carolina.

\*rimosus Raf. Atl. Jour. 1:181. 1833, descr.; Merr. I.c., nom. Virginia, North Carolina.

\*rugosus Raf. Med. Fl. 2:270. 1830, nom.; Atl. Jour. l.c., descr.; Merr. 1.c., nom. Maryland to South Carolina.

UREDO Pers.

\*citrina Raf. Car. Nuov. Gen. Sp. Sicil. 88. 1810, descr.; Merr. Farlowia 1:261. 1943, nom. Sicily, on Dianthus dubius Raf.

**VOLVARIA** Fries

\*coccinea Raf. Med. Repos. II. 3:423. 1806, nom.; Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom.; Merr. Farlowia 1:261. 1943, nom. Central Atlantic United States= Volvycium coccineum Raf.

VOLVYCIUM Raf. Med. Repos. II. 5:358. 1808, descr.; Jour. Bot. (Paris) 1:222. 1809, descr.; Anal. Nat. Tabl. Univ. 211. 1815, nom.; Merr. Farlowia 1:261. 1943, nom.=Battarrea Pers. vel aff. fide Saccardo=gen. dub. fide Fischer. \*coccineum Raf. 11.cc., descr.; Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom.; Merr. Farlowia 1:262. 1943, nom.

Maryland.

XYLISSUS Raf. Med. Repos. II. 5:356. 1808, nom. subnud.; Jour. Bot. (Paris) 2:177. 1809, nom. subnud.; Merr. Farlowia 1:262. 1943, nom.=Dacryomyces Nees vel aff. fide Saccardo.

\*cylindricus Raf. 11.cc., nom.; Merr. 1.c., nom. Pennsylvania. \*lineatus Raf. Il.cc., nom.; Merr. l.c., nom. Pennsylvania. \*oblongus Raf. Il.cc., nom.; Merr. l.c., nom. Pennsylvania.

\*ZONILIA Raf. Anal. Nat. Tabl. Univ. 211. 1815, nom. Farlowia 1:262. 1943, nom.

#### LICHENES

\*EPIDROLITHUS Raf. Life of Travels 136. 1836, nom., nota.; Merr. Farlowia 1:262. 1943, nom. Pennsylvania =? Lepto-

gium (Ach.) S. Gray.

LEPTUBERIA Raf. Med. Repos. II. 5:350. 1808, nom.; Jour. Bot. (Paris) 2:167. 1809, nom.; A. Gray, Am. Jour. Sci. 40:226. 1841, nom.; Merr. Farlowia 1:262. 1943, nom.

\*amorpha Raf. 11.cc., nom.; A. Gray, 1.c., nom.; Merr. 1.c., nom. Pennsylvania.

SCYPHORUS Raf. Anal. Nat. Tabl. Univ. 208. 1815, nom. nov. Scyphophorus Acharius; Merr. Farlowia 1:262. 1943. nom

\*XYLOMA Raf. Fl. Tellur. 1:55. 1836 [1837], nom.

#### MUSCI

\*DIPHAS Raf. Am. Monthly Mag. Crit. Rev. 1:429. 1817, nom. nov. Diphascum Eaton; Merr. Farlowia 1:262. 1943,

nom.=Diphyscium Ehrh. (1787).

HETERODON Raf. Med. Repos. II. 5:350. 1808, nom.; Jour. Bot. (Paris) 2:167. 1809, nom.; Merr. Farlowia 1:262. 1943, nom.=Fissidens Hedw. (1782).

\*bryoides Raf. Il.cc., descr.; A. Gray, Am. Jour. Sci. 40:226. 1841, descr.; Merr. l.c., nom. New Jersey=? Fissidens julianus (Mont.) Schimp.

## **PTERIDOPHYTA**

## POLYPODIACEAE

ACROSTICHUM Linn.

\*acuminatum Raf. New Fl. N. Am. 4:104. 1836 [1838]. descr. (Acrostichum aureum sensu Kunth, non Linn.), iter. Merr. Am. Fern Jour. 33:45. 1943, nota. Venezuela=Acrostichum daneaefolium Langsd. & Fisch. (1810) (A. excelsum Maxon, 1905).

\*laciniatum Raf. Med. Repos. II. 5:353. 1808, nom. (Acrosticum); Jour. Bot. (Paris) 2:173. 1809, nom. (Acrosticum); Merr. l.c., nom., non Gilib. 1792. Central Atlantic

United States.

\*maritimum Raf. New Fl. N. Am. 1:60. 1836, descr. (Acrostichum aureum sensu Michx.), iter. Merr. op. cit. 46, nota.; Raf. op. cit. 4:104. 1836 [1838], nom., Florida=Acrostichum aureum Linn.

\*oreolatum Raf. op. cit. 59, nom., sphalm.=A. areolatum Linn.=Woodwardia areolata (Linn.) Moore. Eastern

North America.

\*ADIANTHUM Raf. New Fl. N. Am. 1:63. 1836, nom.; Fl. Tellur. 1:86. 1836 [1837], nom.=seq. \*pedatum Raf. New Fl. N. Am. 1:63. 1836, nom.=Adiantum

pedatum Linn. North temperate regions.

ADIANTUM Linn.

\*capilveneris Raf. Med. Fl. 1:31. 1828, nom., iter. Man. Med. Bot. 31. 1841; Merr. Am. Fern Jour. 33:46. 1943, nom. Eurasia, North America=Adiantum capillus veneris Linn.

ASPLENIUM Linn.

\*falcatum Raf. Western Minerva 42. 1821, nom.; iter. Fox, Science II. 12:213. 1900; Merr. Am. Fern Jour. 33:46. 1943, nom. Mississippi or Missouri.

\*glaucum Raf. l.c., nom., iter. Fox, l.c.; Merr. l.c., nom. Mis-

sissippi or Missouri.

\*ruta Raf. Med. Fl. 2:198. 1830, nom. nov. [Asplenium ruta-

\*ruta Raf. Med. Fl. 2:198. 1830, nom. nov. [Asplenium rutamuraria Linn.]; Merr. 1.c., nom.

\*DRIOPTERIS Raf. Med. Fl. 1:32. 1828, nom. in obs., iter.
Man. Med. Bot. 32. 1841; Merr. Am. Fern Jour. 33:48.
1943, nom.=Dryopteris Adans. (1763), nom. conserv.
(Filix Hill, 1755, non Ludw., 1757, nec Adans., 1763;
Thelypteris Schmidel, 1762, non Adans., 1763).

\*FILINGUIS Raf. Med. Fl. 2:220. 1830, nom. (Scolopendrium officinale Sm.); Merr. Am. Fern Jour. 33:48. 1943, nom., nota=Phyllitis Ludw. (1757) (Scolopendrium Adans. 1763).

\*GLOSSOPTERIS Raf. Anal. Nat. Tabl. Univ. 205. 1815, nom. nov. Scolopendrium Sm.; Am. Monthly Mag. Crit. Rev. 2:268. 1818, nom. (Scolopendrium Sm.); op. cit. 4: 195. 1819, nom., nota (Scolopendrium Sm.); Jour. Phys. Chim. Hist. Nat. 89:262. 1819, nom., nota (Scolopendrium Sm.); Merr. Am. Fern Jour. 1:48. 1943, nom., nota=
Phyllitis Ludwig (1757). Phyllitis Ludwig (1757).

\*angustifolia Raf. Herb. Raf. 52. 1833, nom.; Merr. 1.c.,

nom. Rocky Mountains or Oregon.

\*furcata Raf. op. cit. 53, nom.; Merr. 1.c., nom. Rocky Moun-

tains or Oregon.

\*hemionitis Raf. Chloris Aetn. 13. 1815, nom. (Asblenium hemionitis Linn.; Scolopendrium hemionitis Willd.); Merr. 1.c., nom. Sicily=Asplenium hemionitis Linn.
\*obtusa Raf. Herb. Raf. 53. 1833, nom.; Merr. 1.c., nom.

Rocky Mountains or Oregon.

\*scolopendrium Raf. Chloris Aetn. 13. 1815, nom. (Asplenium scolopendrium Linn.; Scolopendrium officinarum Willd.); Merr. 1.c., nom. Sicily=Phyllitis scolopendrium (Linn.) Newm.

\*LEMAPTERIS Raf. Jour. Phys. Chim. Hist. Nat. 89:262. 1819, nom. nov. Pteris Linn.; Merr. Am. Fern Jour. 33: 49. 1943, nom.=Pteris Linn.
\*LEPTOPHYLLUM Raf. Chloris Aetn. 13. 1815, nom.; Merr.

Am. Fern Jour. 33:49. 1943, nom., nota, non Ehrh. (1789), nec Blume (1898) = Anogramma Link (1841).

\*acrostichoides Raf. l.c., nom. (Polypodium leptophyllum

Linn.; Acrostichum leptophyllum DC.); Merr. I.c., nom., nota. Sicily=Anogramma leptophylla (Linn.) Link.
\*NESORIS Raf. New Fl. N. Am. 4:104. 1836 [1838], descr., iter. Merr. Am. Fern Jour. 33:50. 1943; Good Book 47. 1840, nom.=Pityrogramma Link (1833) (Ceropteris Link 1841).

\*bicolor Raf. New Fl. 1.c., descr. Florida [cult.]=Pityro-

gramma calomelanos (Linn.) Link.
\*\*discolor Merr. Am. Fern. Jour. 33:50. 1943, nom., sphalm., nota=Nesoris bicolor Raf.=Pityrogramma calomelanos (Linn.) Link.

ONOCLEA Linn.

\*costata Raf. Herb. Raf. 66. 1833, nom.; Merr. Am. Fern

Jour. 33:51. 1943, nom. Appalachian Mountains.
\*dentata Raf. op. cit. 63, nom.; Merr. 1.c., nom. Kentucky, Indiana, Illinois.

\*laciniata Raf. op. cit. 66, nom.; Merr. l.c., nom. Alleghany Mountains of Pennsylvania.

\*repanda Raf. op. cit. 63, nom.; Merr. l.c., nom. Kentucky. \*PERIPTERIS Raf. Anal. Nat. Tabl. Univ. 205. 1815, nom. nov. Pteris Linn.; Am. Monthly Mag. Crit. Rev. 2: 268. 1818, nom. (Pteris Linn.); Jour. Phys. Chim. Hist. Nat. 89:262. 1819, nom. (Pteris Linn.); Fl. Tellur. 1:83. 1836 [1837], nom. (Pteris Linn.); Merr. Am. Fern Jour. 33:53.

1943, nom., nota=Pteris Linn.
\*edulis Raf. Herb. Raf. 54. 1833, nom.; Merr. 1.c., nom., nota.
Rocky Mountains or Oregon. Prob.=Pteridium aquilinum

(Linn.) Kuhn.

\*rugosa Raf. op. cit. 41, nom.; Merr. 1.c., nom., nota. Upper Missouri (Mandan country) = Dakota.

\*PHYLLITIS Raf. Princ. Somiol. 29. 1814, nom. nov. Scolopendrium Sm.; Merr. Am. Fern Jour. 33:54. 1943, nom., nota=Phyllitis Ludwig (1757).

\*PHYLLITIS Raf. Am. Monthly Mag. Crit. Rev. 4:195. 1819. nom. nov. Pteris Linn.; Merr. Am. Fern Jour. 33:54. 1943, nom., nota=Pteris Linn.

POLYPODIUM Linn.

\*bullatum Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom.; Herb. Raf. 41. 1833, nom.; Merr. Am. Fern Jour. 33:54. 1943, nom., nota. Kentucky, Missouri=Polypodium polypodioides (Linn.) Watt. var. michauxianum Weath.

\*erosum Raf. Ann. Nat. Ann. Synop. 16. 1820, descr., iter. Merr. 1.c., nota, Kentucky=Cystopteris fragilis (Linn.)

Bernh.

\*filix Raf. First Cat. Bot. Gard. Transylv. Univ. 8. 1824, nom. [Polypodium filix-femina Linn. vel P. filix-mas Linn.].

POLYPODIUM (continued).

\*medium Raf. Am. Jour. Sci. 1:79. 1818, nom.; Merr. l.c.,

nom., nota. Pennsylvania, at Philadelphia. vulgare Linn.; Raf. Med. Fl. 2:67. 1830, descr. North America.

var. latifolium Raf. 1.c., nom. levigatum Raf. l.c., nom. multicaule Raf. l.c., nom.

multicaule Rat. 1.C., nom.

\*PTERETIS Raf. Am. Monthly Mag. Crit. Rev. 2:268. 1818, nom. nov. Struthiopteris Willd.; Merr. Am. Fern Jour. 33:55. 1943, nom., nota. Nomen validum (Struthiopteris Willd., 1809, non Weis., 1770, nec Bernh., 1801; Matteuccia Todaro, '1866; Pterinoides O. Kuntze, 1891).

\*PTERIDIUM Raf. Princ. Somiol. 26. 1814, nom. nov. Pteris Linn.; Merr. Am. Fern Jour. 33:56. 1943, nom., nota=Pteris Linn.

Pteris Linn.

\*PTERILIS Raf. Am. Monthly Crit. Rev. 4:195. 1819, nom. nov. Struthiopteris Willd.; Merr. Am. Fern Jour. 33:56. 1943, nom., nota=Pteretis Raf. (1818).

\*PTERILIS Raf. Med. Fl. 2:254. 1830, nom. nov. Pteris Linn., Fl. Tellur. 1:83. 1836 [1837], nom. (Pteris Linn.); Merr. Am. Fern Jour. 33:99. 1943, nom., nota=Pteris Linn. (vel Pteris Linn.)

Pteridium Scop., 1760).
\*SCIPHOFILIX Raf. Princ. Somiol. 26. 1814, nom.; Merr. Am.

\*SCIPHOFILIX Raf. Princ. Somiol. 26. 1814, nom.; Merr. Am. Fern Jour. 33:97. 1943, nom. = Scyphofilix Thouars (1808).

\*SCYPHOPTERIS Raf. Princ. Somiol. 26. 1814, nom. nov. Scyphofilix Thouars; Fl. Tellur. 1:84. 1836 [1837], nom. (Scyphofilix Thouars); Merr. Am. Fern Jour. 33:97. 1943, nom., nota = Scyphofilix Thouars (1808).

\*SYNOTELIS Raf. New Fl. N. Am. 1:59. 1836, nom.. nota, sub Acrostichum Linn.; Merr. Am. Fern Jour. 33:98. 1943, nom., nota = Cyclophorus Desv. (1811) vel Acrostichum Linn.

\*THELIPTERIS Raf. Med. Ed. 4.00

\*THELIPTERIS Raf. Med. Fl. 1:32. 1828, nom., in obs., iter. Man. Med. Bot. 32. 1841; Merr. Am. Fern Jour. 33: 99. 1943, nom.=Thelypteris Adans. (1763), non Schmeidel (1762) = Pteris Linn.

#### OSMUNDACEAE

OSMUNDA Linn.

\*fuscata Raf. Herb. Raf. 53. 1833, nom.; Merr. Am. Fern Jour. 33:51. 1943, nom. Rocky Mountains or Oregon.

## SCHIZAEACEAE

\*SCHIZEA Raf. Am. Monthly Mag. Crit. Rev. 2:174. 1818, nom.; New Fl. N. Am. 1:59. 1836, nom.; Fl. Tellur. 1:55. 1836 [1837], nom. = Schizaea Sm. (1783). \*pusilla Raf. Am. Monthly Mag. et New Fl. 11.cc., nom. Eastern North America = Schizaea pusilla Pursh.

#### OPHIOGLOSSACEAE

\*MENOPTERIS Raf. Herb. Raf. 53. 1833, nom. (Lunaria Bauhin, non Lunaria Linn.); Merr. Am. Fern Jour. 33:50. 1943, nom., nota=Botrychium Swartz (1801).

\*remotiloba Raf. 1.c., nom., Merr. 1.c., nom. Rocky Mountains

or Oregon.

OPHIOGLOSSUM Linn. \*lineatum Raf. Med. Repos. II. 5:353. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom.; Merr. Am. Fern Jour. 33:51. 1943, nom., nota. Central Atlantic United States. Prob.=Ophioglossum vulgatum Linn.

\*pubescens Raf. 11.cc., nom.; Précis Découv. Somiol. 46. 1814, descr., iter. Merr. op. cit. 52, nom., nota; Jour. Bot. (Desv.) 4:273. 1814, nom. subnud. New Jersey=Ophioglossum vulgatum Linn.

\*pusillum Raf. Il.cc., nom.; Précis Découv. Somiol. 46. 1814, descr.; Jour. Bot. (Desv.) 4:273. 1814, descr., iter. Merr. 1.c., nom., nota. Northern Pennsylvania = Ophioglossum vul-Farwer (1916 gatum Linn., var. pseudopodum (Blake) Fernald, Rhodora 41:498. 1939.

\*repandum Raf. Herb. Raf. 53. 1833, nom.; Merr. op. cit.

53, nom. Rocky Mountains or Oregon.

#### MARSILEACEAE

\*MARSIGLIA Raf. Fl. Tellur. 1:18. 1836 [1837], nom. nov. Marsilea Linn.; Merr. Am. Fern Jour. 33:49. 1943, nom., nota (Marsiglia Trev. Atti Soc. Ital. Sci. Nat. 19:475. 1877) = Marsilea Linn.

\*MARSILLA Raf. Jour. Bot. (Paris) 1:222. 1808, non., sphalm.

=Marsilea Linn.

\*PILLULARIA Raf. Med. Repos. II. 5:358. 1808, nom.; Jour. Bot. (Paris) 1:222. 1809, nom.; Merr. Am. Fern Jour. 33:54. 1943, nom.=Pilularia Linn.

#### EQUISETACEAE

EQUISETUM Linn.

\*montanum Raf. Fl. Ludovic, 171. 1817, nom.; Am. Monthly Mag. Crit. Rev. 2:206. 1818, descr., iter. Merr. Am. Fern Jour. 33:99. 1943, nota. New York=Equisetum sylvaticum Linn.

prealtum Raf. Fl. Ludovic. 13. 1817, descr. (Prêle Rob. Voy. Louis. 3:13. 1807); iter. Merr. 1.c., nota (E. praealtum); Med. Fl. 2:217. 1830, nom. Louisiana. (E. robustum A.

Br., 1844).

\*tuberosum Raf. Med. Fl. 2:218. 1830, nom.; Herb. Raf. 54. 1833, nom.; Merr. l.c., nom., nota. Oregon. Prob.=Equisetum telmateia Ehrh.

## **LYCOPODIACEAE**

\*CLOPODIUM Raf. Anal. Nat. Tabl. Univ. 205. 1815, nom. [Lycopodium Linn.]; Merr. Am. Fern Jour. 33:101. 1943,

nom.=Lycopodium Linn.

\*COPODIUM Raf. Am. Monthly Mag. Crit. Rev. 2:44. 1817, nom. nov. Lycopodium Linn.; op. cit. 268. 1818, nom., nota; Merr. Am. Fern Jour. 33:101. 1943, nom., nota=Lycopodium Linn.

\*oxynemum Raf. op. cit. 44, descr.; iter. Merr. l.c., nota; Fl. Ludovic. 169. 1817, nom. Catskill Mountains, New York=Lycopodium clavatum Linn.

LYCOPODIUM Linn. \*violacinum Raf. Jour. Bot. (Desv.) 1:236. 1813, descr. (err., Lycoperdon intended) sub Mycastrum siculum Raf.; Merr. Am. Fern Jour. 33:102, nom., nota; Merr. Farlowia 1:259. 1943, nom. Pennsylvania=Lycoperdon violacinum Raf. (Lycoperdiaceae).

#### **ISOETACEAE**

\*SIVETES Raf. Med. Repos. II. 5:358. 1808, nom., sphalm.; Merr. Am. Fern Jour. 33:98. 1943, nom., nota=Isoetes Linn.

## SPERMATOPHYTA

#### GYMNOSPERMAE

## TAXACEAE

†TUMION Raf. Good Book 63. 1840, nom. nov. Torreya Arnott (1838), non *Torreya* Raf. (1818), nec Raf. (1819), nec Spreng. (1821), nec Eaton (1836), nec Croom (1843)= Torreya Arnott (1838), nom. conserv. (Tumion Raf., 1840).

#### PINACEAE

ABIES Linn. †aromatica Raf. Med. Fl. 2:182. 1830, nom.; Atl. Jour. 1:119. 1832, descr. (third fir, Lewis & Clark); Herb. Raf. 53. 1833, nom.; New Fl. N. Am. 1:38. 1836, descr. Oregon= ? Abies grandis Lindl.

ffalcata Raf. Med. Fl. 1.c., nom.; Atl. Jour. 1:120. 1832, descr. (seventh fir, Lewis & Clark); Herb. Raf. l.c., nom.; New Fl. N. Am. l.c., descr. Oregon=? Picea sitchensis (Bong.) Carrière.

(Bong.) Carriere.
†heterophylla Raf. Med. Fl. 1.c., nom.; Atl. Jour. 1:119.
1832, descr. (second fir, Lewis & Clark); Herb. Raf. 1.c.,
nom. (heterophyla); New Fl. N. Am. 1:37. 1836, descr.
(heterophyla). Oregon=Tsuga heterophylla (Raf.) Sarg.
†microphylla Raf. Med. Fl. 1.c., nom.; Atl. Jour. 1.c., descr.
(fourth fir, Lewis & Clark); Herb. Raf. 1.c., nom. (micro-

Corrich MA

phyla); New Fl. N. Am. 1:38. 1836, descr. (microphyla). Oregon=praec.

mucronata Raf. Atl. Jour. 1:120. 1832, descr. (fifth fir, Lewis & Clark); Herb. Raf. l.c., nom.; New Fl. N. Am. l.c., descr. Oregon=Pseudotsuga taxifolia (Poir.) Britton.

var. palustris Raf. New Fl. N. Am. 1.c., descr. Oregon. obliquata Raf. ex Gordon, Pinet. Suppl. 10. 1862, nom. in syn.=Pseudotaxus taxifolia (Poir.) Britton.

taxifolia Raf. New Fl. N. Am. 1:38. 1836, nom. (Pinus taxifolia Lamb. [Salisb.] et sensu Eaton). North America =Abies balsamea (Linn.) Mill.

var. patula Raf. op. cit. 39, descr. Cumberland Mountains. †trigona Raf. Med. Fl. I.c., nom.; Atl. Jour. 1:119. 1832, descr. (first fir, Lewis & Clark); Herb. Raf. 1.c., nom.; New Fl. N. Am. 1:37. 1836, descr. Oregon=? Picea sitchensis (Bong.) Carrière.

PINUS Linn. \*humilis Raf. Herb. Raf. 54. 1833, nom. (sphalm., huuilis); New Fl. N. Am. 3:95. 1836 [1838], nom. Northwestern United States (Lewis & Clark).

\*macrocarpa Raf. Il.cc., nom. Northwestern America (Lewis & Clark).

\*tada Raf. Fl. Ludovic. 162. 1817, nom.=Pinus taeda Linn. \*teda Raf. Med. Fl. 2:252. 1830, nom.=Pinus taeda Linn. North America.

### **TAXODIACEAE**

JACULARIA Raf. Loud. Gard. Mag. 8:247. 1832, nom. nov. Belis Salisb. (1807), iter. Schlecht. Linnaea 8: Lit.-Ber. 72. 1833, iter. Britten, Jour. Bot. 38:228. 1900 = Cunninghamia R. Br. (1826), nom. conserv. (Belis Salisb., 1807).

#### CUPRESSACEAE

CUPRESSUS Linn.

\*purpurea Raf. New Fl. N. Am. 3:95. 1836 [1838], nom. Florida (Bartram).
JUNIPERUS Linn.

†depressa Raf. Fl. Ludovic. 171. 1817, nom.; Am. Monthly Mag. Crit. Rev. 2:207. 1818, descr.; M'Murtrie. Sketch. Louisv. 219. 1819, nom.; Med. Fl. 2:13, 14. 1830, descr. (J. communis Linn. var. depressa Pursh). Eastern North America.

\*radicans Raf. New Fl. N. Am. 3:95. 1836 [1838], nom.

Northwestern United States (Lewis & Clark).
\*radicatus Raf. Med. Fl. 2:13. 1830, nom., nota; Herb. Raf. 54. 1833, nom. Yellowstone River (Lewis & Clark). sabina Linn.

var. cupressiformis Raf. Med. Fl. 2:14. 1830, descr. Europe.

excelsa Raf. 1.c., descr. Oregon and Asia. rupestris Raf. 1.c., descr. Canada.

#### ANGIOSPERMAE

#### Monocotyledoneae

#### **TYPHACEAE**

TYPHA Linn.

tcrassa Raf. Med. Fl. 2:270. 1830, nom.; Atl. Jour. 1:148. 1832, descr.; New Fl. N. Am. 2:91. 1836 [1837], descr. (Typha latifolia auct. Am.); Aut. Bot. 197. 1840, nom. North America=T. latifolia Linn.

North America=T. latifolia Linn.
elatior Raf. Med. Repos. II. 5:354. 1808, nom.; Jour. Bot. (Paris) 2:174. 1809, nom.; Med. Fl. 2:270. 1830, nom.; Atl. Jour. 1:148. 1832, descr.; New Fl. N. Am. 2:91. 1836 [1837], descr. (Typha latifolia sensu Ell.). Carolina to Kentucky=Typha latifolia Linn.
gracilis Raf. New Fl. N. Am. 2:91. 1836 [1837], descr. (Typha angustifolia sensu auct. Am.); Aut. Bot. 197. 1840, nom. New Jersey to Virginia=Typha angustifolia Linn. spiralis Raf. Atl. Jour. 1:148. 1832, descr.; New Fl. N. Am. 2:91. 1836 [1837], descr. (Typha latifolia sensu Sw.). Florida, Cuba, Jamaica=Typha domingensis (Pers.) Kunth.

#### PANDANACEAE

\*PANDAMUS Raf. F1. Tellur. 1:16. 1836 [1837], nom., sphalm.=Pandanus Linn.

#### SPARGANIACEAE

SPARGANIUM Linn.

\*axilare Raf. Aut. Bot. 198. 1840, descr. (S. simplex sensu Pursh). Alleghany Mountains and Ohio.

\*ligulare Raf. l.c., descr. (S. americanum sensu Ell.). Carolina, Florida=S. americanum Nutt.

#### POTAMOGETONACEAE

PELTOPSIS Raf. Jour. Phys. Chim. Hist. Nat. 89:102. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 241. 1820, descr.= Potamogeton Linn.

perfoliata Raf. ex Jacks\*. Ind. Kew. 2:457. 1894 (Potamogeton perfoliatus Linn.). Temperate and boreal regions. POTAMOGETON Linn.

borealis Raf. Med. Repos. II. 5:354. 1808, nom. (Potamo-

porealis Raf. Med. Repos. 11. 5:354. 1808, nom. (Potamogiton); Jour. Bot. (Paris) 2:174. 1809, nom.; Med. Repos. III. 2:409. 1811, descr. (Potamogeton marinus sensu Michx.). Canada, New England = Potamogeton filiformus Pers. var. borealis (Raf.) St. John, Rhodora 18:134. 1916. dimorphus Raf. Am. Monthly Mag. Crit. Rev. 1:358. 1817, descr. (P. diversifolius Barton Fl. Philadelph. Prodr. 27. 1815; P. setaceus Pursh). Pennsylvania (P. spirillus Tuckerm 1848). Tuckerm. 1848).

= P. oapilla eine Poir (1816)

diversifolius Raf. Med. Repos. II. 5:354. 1808, nom.; Jour. Bot. (Paris) 2:174. 1809, nom.; Med. Repos. III. 2:409. 1811, descr. (Potamogeton hybridus Michx.); Am. Monthly Mag. Crit. Rev. 1:358. 1817, nom., nota. Delaware to Virginia and Carolina=Potamogeton hybridus Michx.—epihydrus Raf. Med. Repos. II. 5:354. 1808, nom.; Jour. Bot. (Paris) 2:174. 1809, nom. (sphalm., epiphydrum); Med. Repos. III. 2:409. 1811, descr. (Potamogeton natans Linn. var. \(\beta\) Michx.); Am. Monthly Mag. Crit. Rev. 2:344. 1818, nom. (Potamogeton natans sensu Bigelow). North America

nom. (Potamogeton natans sensu Bigelow). North America (P. pensylvanicus Willd.; P. nuttallii Cham. & Schlecht.). filiformis Raf. Med. Repos. III. 2:409. 1811, descr. Delaware.

foliorum Raf. 1.c., descr. = seq. foliosus Raf. op. cit. II. 5:354. 1808, nom.; Jour. Bot. (Paris)

foliosus Raf. op. cit. II. 5:354. 1808, nom.; Jour. Bot. (Paris) 2:174. 1809, nom. (Potamogeton gramineus sensu Michx.). Delaware to Virginia and Carolina (P. pauciflorus Pursh). petiolaris Raf. op. cit. III. 2:409. 1811, descr. Delaware. tenuifolius Raf. 1.c., descr. (Potamogeton luceus sensu Michx.). North America. (P. microstachys Wolfg., 1827, P. obrutus Wood, 1847) = P. alpinus Balbis, var. tenuifolius (Raf.) Ogden, Rhodora 45:90. 1943.

POTAMOGITON Raf. Med. Repos. II. 5:354. 1808, nom., sphalm. =Potamogeton Linn.

ZOSTERA Linn.

stenophylla Raf. Am. Monthly Mag. Crit. Rev. 2:175. 1818, nom. (Zostera marina sensu Pursh). North America= Zostera marina Linn. , were strengthylla asokaw & tracky Eci Stn. Khofres 35: 92, 1933

#### NAJADACEAE

\*CAVOLIANA Raf. Jour. Phys. Chim. Hist. Nat. 89:259. 1819, nom. nov. Caulinia Willd.=seq.

CAVOLINIA Raf. Am. Monthly Mag. Crit. Rev. 2:175. 1818, nom. nov. Caulinia Willd.; op. cit. 4:193. 1819, nom. (Caulinia Willd.)=Najas Linn.

#### JUNCAGINACEAE

ABBOTIA Raf. New Fl. N. Am. 1:36. 1836, descr.; Fl. Tellur. 4:32. 1836 [1838], descr.; Good Book 44. 1840, nom.= Triglochin Linn.

fliformis Raf. Il.cc., descr., nom.; Aut. Bot. 65. 1840, nom. (Triglochin triandra Michx.). Carolina, Florida=Triglochin striata Ruiz & Pavon.

palustris Raf. New Fl. N. Am. 1:37. 1836, descr.; Fl. Tellur. 4:32. 1836 [1838], nom.; Aut. Bot. 65. 1840, nom. (Triglochin palustre Linn.). Lake Erie.

pumila Raf. Il.cc., descr., nom. (Triglochin barrelieri Loisel.). Canada, France.

TRISTEMON Raf. Am. Monthly Mag. Crit. Rev. 4:192.
1819, nom., nota (Triglochin palustre Linn.; T. triandrum Michx.); Jour. Phys. Chim. Hist. Nat. 89:262. 1819, nom., nota (Triglochin palustre Linn.; T. triandrum Michx.) = Triglochin Linn.

palustris Raf. ex Jacks\*. Ind. Kew. 2:1122. 1893 (Triglo-chin palustre Linn.). Eurasia, North America.

triander Raf. ex Jacks\*. l.c. (Triglochin triandrum Michx.). Eastern North America=T. striata Ruiz & Pavon.

#### ALISMATACEAE

\*flavum Raf. Med. Repos. II. 5:354. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. Central Atlantic United States. \*latifolium Raf. Herb. Raf. 69. 1833, nom. Alleghany Moun-

tains.

\*montanum Raf. 1.c., nom.; Aut. Bot. 62. 1840, descr. Taconic and Alleghany Mountains=A. subcordatum Raf. odoratum Raf. Fl. Ludovic. 17. 1817, descr. (Herbe à malo Rob. Voy. Louis. 3:340. 1807); Med. Fl. 2:187. 1830, nom., sphalm., Alima. Louisiana.

\*parviflorum Raf. Aut. Bot. 62. 1840, descr. (Alisma plantago Linn. var. parviflorum Eaton, 1824) Pennsylvania, Kentucky, Alabama=A. parviflorum Pursh=A. subcordatum Raf.

roseum Raf. Med. Repos. II. 5:354. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. Central Atlantic United States.

(Paris) 2:1/3. 1809, nom. Central Atlantic United States. subcordatum Raf. op. cit. 362, descr.; Jour. Bot. (Paris) 1: 231. 1808, descr.; Am. Monthly Mag. Crit. Rev. 1:357. 1817, nom., nota (Alisma plantago sensu Barton); op. cit. 2:174. 1817, nom., nota (Alisma triviale Pursh); op. cit. 4:192. 1819, nom., nota (Alisma triviale Pursh); Aut. Bot. 62. 1840. descr. North America (Alisma triviale Pursh) 1840, descr. North America (A. parviflorum Bot. 62. Pursh, 1814); see Fernald, Rhodora 48:88. 1946.

DIPHOREA Raf. Neogen. 3. 1825, descr. = Sagittaria Linn. graminea Raf. ex Jacks\*. Ind. Kew. 1:769. 1893 (Sagittaria

graminea Michx.). Eastern United States.

DREPACHENIA Raf. Neogen. 3. 1825, descr. = Sagittaria Linn. lancifolia Raf. ex Jacks\*. Ind. Kew. 1:798. 1893 (Sagittaria lancifolia Linn.). North America.

LURONIUM Raf. Aut. Bot. 63. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:93. 1921, nom., nota=Elisma Buchen. (1869).

natans Raf. 1.c., descr. (Alisma natans Linn.); Pennell, 1.c., nom. Europe=Elisma natans (Linn.) Buchen.

SAGITTARIA Linn.

cerulea Raf. Fl. Ludovic. 18. 1817, nom. (Fléchiere à feuilles en flêche à fleurs én épi [Fléchiere (Sagittaria), à feuilles taillées en effet en flèches, à fleurs bleues, en épi] Rob. Voy. Louis. 3:340. 1807). Louisiana=Pontederia cordata Linn. (Pontederiaceae).

#### HYDROCHARITACEAE

HYDROCHARIS Linn.

\*morsus Raf. Aut. Bot. 188. 1840, nom. [H. morsus-ranae

Linn.]. Europe=H. morsus-ranae Linn.

PHILOTRIA Raf. Am. Monthly Mag. Crit. Rev. 2:175. 1818, nom. nov. Elodea Michx. (Udora Nutt.); op. cit. 4:195. 1819, nom. (Elodea Michx.); Jour. Phys. Chim. Hist. Nat. 89:257. 1819, nom. (Udora Nutt.) = Anacharis Rich. (1811); see Marie-Vict. Contr. Lab. Bot. Univ. Montréal 18:1-43. 1931.

\*RHIZAKENIA Raf. Aut. Bot. 188. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:95. 1921, nom.; Merr. Am. Fern Jour. 33:97. 1943, nom., nota=Limnobium Rich. (1811).

\*ovata Raf. l.c., descr.; New England to Florida=Limnobium

spongia (Bosc) Steud. (L. boscii L. C. Rich.).

\*UDOZA Raf. Am. Monthly Mag. Crit. Rev. 4:195. 1819, nom., sphalm.=Udora Nutt. (1818)=Anacharis Rich. (1811).

## VALLISNERIACEAE

VALISNERIA Scop. = Vallisneria Linn. \*americana Raf. Med. Repos. II. 2:208. 1804, nom., nota. Maryland (Havre de Grace) [Vallisneria americana Michx.1.

#### GRAMINEAE

AGRESTIS Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818, nom., sphalm.=Agrostis Linn.

\*viridis Raf. 1.c., nom. (Ind. Kew. 1:65. 1893, sub Agrostis).

Alleghany Mountains or Ohio.

AGROSTIS Linn. viridis Raf. ex Jacks\*. Ind. Kew. 1:65. 1893 [Agrestis viridis Raf.]. Alleghany Mountains or Ohio. AIRA Linn.

†compressa Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818,

nom. Alleghany Mountains or Ohio. \*obtusa Raf. Jour. Phys. Chim. Hist. Nat. 89:104. 1819, nom. sub Eatonia Raf.; Isis von Oken 1820, 1: Lit.-Anz. 242. 1820, nom.=Aira obtusata Desv.=Sphenopholis obtusata (Michx.) Scribn. Eastern North America.

\*ALLOIATHEROS sensu Raf. Seringe Bull. Bot. 1:221. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 85. 1833, non Ell. (1817) = Andropogon Linn.

aristatus Raf. ex Jacks\*. Ind. Kew. 1:83. 1893 (Andropogon aristatus Poir.). Ile de France.

AMAGRIS Raf. Princ. Somiol. 27. 1814, nom. nov. Calamagrostis Adans.; Am. Monthly Mag. Crit. Rev. 4:190. 1819 nom. (Calamagrostis Adans.); Jour. Phys. Chim. Hist. Nat. 89:262. 1819 nom. (Calamagrostis Adans.); Fl. Tellur. 1:17, 84. 1836 [1837], nom. (Calamagrostis Adans.) = Calamagrostis Adans. (1763).

AMPHICARPON Raf. Am. Monthly Mag. Crit. Rev. 2:175. 1818, nom. nov. provis. (Milium amphicarpon Pursh); op. cit. 4:188. 1819, nom.; Am. Jour. Sci. 1:253. 1818, nom. (Milium amphicarpon Pursh); Jour. Phys. Chim. Hist. Nat. 89:260. 1819, nom., nota (Milium amphicarpon Pursh) = Amphicarpum Kunth (1829).

ANDROPOGON Linn. \*arenaceus Raf. Western Rev. Miscel. Mag. 1:95. 1819, nom., sphalm. Kentucky=A. avenaceus Michx.=Sorghastrum nutans (Linn.) Nash.

\*sessiliflorus Raf. Seringe Bull. Bot. 1:221. 1830, nom., sub Dimeiostemon Raf., iter. Schlecht. Linnaea 8: Lit.-Ber.

85. 1833.

ANTHIPSIMUS Raf. Jour. Phys. Chim. Hist. Nat. 89:105. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 242. 1820, descr.=Muhlenbergia Schreb. (1789).

gonopodus Raf. 1l.cc., descr. Ohio=Muhlenbergia schreberi J. F. Gmel. fide Chase, in lit. ex spec. in herb. Durand, Paris.

APLEXIA Raf. Neogen. 4. 1825, descr.; Seringe Bull. Bot. 1: 220. 1830, descr., iter. Schlecht, Linnaea 8: Lit.-Ber. 84. 1833=Leersia Sw. (1788), nom. conserv. (Homalocenchrus

Mieg, 1760). virgata Raf. ex Jacks\*. Ind. Kew. 1:162. 1893 (Leersia virgata Raf. ex Jacks\*. gata Raf., sphalm.=L. virginica Willd.). Eastern United

States = seq.

virginica Raf. ex Jacks\*. l.c. (Leersia virginica Willd.). Eastern United States.

\*APLOCERA Raf. Med. Fl. 2:193. 1830, nom. nov. Monocera Ell.=Ctenium Panzer (1813) nom. conserv. (Campulosus Desv., 1810).

\*maritima Raf. 1.c., nom. (Monocera [aromatica Ell.]). Carolina=Ctenium aromaticum (Walt.) Wood.

ARISTIDA Linn.

geniculata Raf. Am. Monthly Mag. Crit. Rev. 2:119. 1817, descr.; Fl. Ludovic. 170. 1817, nom. Long Island, N. Y.= Aristida longespica Poir., var. geniculata (Raf.) Fernald, Rhodora 35:318. 1933.

ASPERELLA Humb.=Hystrix Moench.
echidnea Raf. Am. Monthly Mag. Crit. Rev. 4:190. 1819,
nom. (Elymus hystrix Linn.). North America=Hystrix
patula Moench.

BENNETIA Raf. Seringe Bull. Bot. 1:220. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 85. 1838, non Bennettia S. F. Gray (1821), nec DC. (1837), nec R. Br. (1838), nec Miq. (1858)=Sporobolus R. Br. (1810).

juncea Raf. ex Jacks\*. Ind. Kew. 1:291. 1893 (Agrostis juncea Michx.). Eastern North America=Sporobolus innegus (Michx.).

junceus (Michx.) Kunth.

BULBILIS Raf. Am. Monthly Mag. Crit. Rev. 4:190. 1819,
nom. (Sesleria dactyloides Nutt.); Jour. Phys. Chim. Hist.
Nat. 89:262. 1819, nom. (Sesleria dactyloides Nutt.) =
Buchloë Engelm. (1859), nom. conserv. (Bulbilis Raf.,

dactylodes Raf. ex Kuntze, Rev. Gen. Pl. 2:763. 1891. North America=Buchloë dactyloides (Nutt.) Engelm.

\*CHLOAMMIA Raf. Neogen. 4. 1825, descr.; Seringe, Bull. Bot. 1:221. 1830, descr. (Type Festuca tenella Willd.). North America=Festuca Linn. (Vulpia C. C. Gmel.).

†CHLOAMNIA Raf. ex Schlecht. Linnaea 8: Lit.-Ber. 85. 1833,

descr. (Festuca tenella Willd.) = praec.

CHLOROSTIS Raf. Princ. Somiol. 26, 29. 1814, nom. nov.

Chloris Sw.; Fl. Tellur. 1:84. 1836 [1837], nom. (Chloris Sw.).

CRITESION Raf. Jour. Phys. Chim. Hist. Nat. 89:103. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 241. 1820, descr.; Herb. Raf. 41. 1833, nom.=Hordeum Linn.

geniculatum Raf. 11.cc., descr. (Hordeum jubatum sensu

Pursh). Illinois=Hordeum jubatum Linn.

Pursh). Hinnois=Frordeum Judatum Linn.

DASIOLA Raf. Neogen. 4. 1825, descr.; Seringe Bull. Bot. 1: 221. 1830, descr., iter. Schlecht. Linnaea 8: Lit. Ber. 85. 1833=Festuca Linn. (Vulpia C. C. Gmel.).

elliotea Raf. Neogen. 4. 1825, descr. (Festuca monandra Ell. in herb.). Southeastern United States=Vulpia elliotea (Raf.) Fernald, Rhodora 47:106. 1945 (Festuca sciurea N......) Nutt.)

 

 DIARINA Raf. Med. Repos. II. 5:352. 1808, nom.; Jour. Bot.

 (Paris) 2:169. 1809 (Festuca diandra Michx.); Am.

 Monthly Mag. Crit. Rev. 2:175. 1818, nom. (Festuca

 diandra Michx.); Jour. Phys. Chim. Hist. Nat. 89:104. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 241. 1820,

descr.; ISIS VOII OKEII 1020, 1. LIL AIIZ. 241. 1020, descr.= Diarrhena Beauv. (1812), nom. conserv. (Diarina Raf., 1808; Corycarpus ("Korycarpus") Zea, 1816). festucoides Raf. Med. Repos. II. 5:352. 1808, nom.; Jour. Bot. (Paris) 2:169. 1809, nom. (Festuca diandra Michx.); A. Gray, Am. Jour. Sci. 40:227. 1841, nom.; First Cat. Teach Transports Univ. 13, 1824 now. (Fastuca diandra Bot. Gard. Transylv. Univ. 13. 1824, nom. (Festuca diandra Michx.). North America Diarrhena festucoides (Raf.) Fernald, Rhodora 34:204. 1932; 35:39. 1933 (D. diandra Wood).

Wood).

sylvatica Raf. Jour. Phys. Chim. Hist. Nat. 89:104. 1819, nom. (Festuca diandra Michx.); Isis von Oken 1820, 1:
Lit. Anz. 241. 1820, nom. (Festuca diandra Michx.).
Eastern United States=praec.

DILEPYRUM Raf. Med. Repos. II. 5:353. 1808, nom. nov. Oryzopsis Michx.; Jour. Bot. (Paris) 2:172. 1809, nom.; Am. Monthly Mag. Crit. Rev. 1:427. 1817, nom., nota; op. cit. 2:175. 1818, nom., nota; op. cit. 4:195. 1819, nom., nota; Jour. Phys. Chim. Hist. Nat. 89:260. 1819, nom., nota; Med. Fl. 2:249. 1830, nom., nota; Loud. Gard. Mag. 8:245. 1832, nom., nota, iter. Schlecht. Linnaea 8: Lit.-8:245. 1832, nom., nota, iter. Schlecht. Linnaea 8: Lit.-Ber. 68. 1833, iter. Britten, Jour. Bot. 38:226. 1900 = Oryzopsis Michx. (1803).

\*angustifolium Raf. Med. Fl. 2:249. 1830, nom., nota. North

America.

#DILEUCADEN Raf. Seringe Bull. Bot. 1:220. 1830, descr., sect. Panicum Linn. (Type Panicum scoparium Lam.), iter. Schlecht. Linnaea 8: Lit.-Ber. 84. 1833=Panicum Linn.

DIMEIOSTEMON Raf. Neogen. 4. 1825, descr.; Seringe Bull. Bot. 1:221. 1830, descr., iter. Schlecht. Linnaea 8: Lit. Ber. 85. 1833=Andropogon Linn.

macrurus Raf. ex Jacks\*. Ind. Kew. 1:760. 1893. (Andropogon macrourus Michx.). North America = Andropogon glomeratus (Walt.) Britton, Sterns & Poggenb. sessiliflorus Raf. ex Jacks\*. l.c. (Andropogon sessiliflorus

Raf.) Hab.?

tetrastachys Raf. ex Jacks\*. 1.c. (Andropogon tetrastachyus Ell.). Southeastern United States = Andropogon virginicus Linn.

vaginatus Raf. ex Jacks\*. l.c. (Andropogon vaginatus sensu Ell.). Southeastern United States=Andropogon virginicus Linn.

†DIMESIA Raf. Am. Monthly Mag. Crit. Rev. 1:442. 1817, descr.; op. cit. 2:175. 1818, nom. (Holcus fragrans Willd.); op. cit. 4:188. 190. 1819, nom. (Holcus fragrans Willd.); Fl. Ludovic. 169. 1817, nom.; Jour. Phys. Chim. Hist. Nat. 89:262. 1819, nom., nota=Hierochloë R. Br. (1810), nom. conserv. (Savastana Schrank, 1789).

fragrans Raf. Am. Monthly Mag. Crit. Rev. 1:442. 1817, nom. (Holcus fragrans Willd.). North America=Hiero-

chloë odorata (Linn.) Beauv.

monticola Raf. 1.c., descr. (Holcus monticola Bigel.). White Mountains of New Hampshire=Hierochloë alpina (Sw.) Roem. & Schult.

DIPLOCEA Raf. Am. Jour. Sci. 1:252. 1818, descr.; Am. Monthly Mag. Crit. Rev. 4:190. 1819, nom., nota; Jour. Phys. Chim. Hist. Nat. 89:262. 1819, nom., nota; Isis von Oken 1822, 2:1324. 1822, descr.=Triplasis Beauv. (1812). barbata Raf. Am. Jour. Sci. 1:253. 1818, descr.; Isis von Oken 1822, descr. Long Lebond, Carolina—Triplasis von

Oken l.c., descr. Long Island, Carolina=Triplasis purpurea (Walt.) Chapm.

DISTICHLIS Raf. Jour. Phys. Chim. Hist. Nat. 89:104. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 241. 1820, descr.

maritima Raf. Il.cc., nom. (Uniola spicata Linn.; U. maritima Michx.). North America=Distichlis spicata (Linn.)

Greene, et quoad syn. Michx., Uniola paniculata Linn.
nodosa Raf. ll.cc., nom. (Festuca distichophylla Michx.; F.
"triticea" [triticoides] Lam.). North America=Distichlis
spicata (Linn.) Greene.

EATONIA Raf. Jour. Phys. Chim. Hist. Nat. 89:104. 1819. descr.; Isis von Oken 1820, 1: Lit. Anz. 241. 1820, descr.

=Panicum Linn.

purpurascens Raf. Jour. Phys. 1.c., Isis von Oken, op. cit. 242, descr. (Aira truncata Muhl.; A. pensylvanica Spreng.; A. obtusata Michx.; Airopsis obtusata Desv.; Koeleria pensylvanica DC.; Holcus striatus sensu Barton.). Salt marshes New York. Quoad descr.=Panicum virgatum Linn., quoad syn. = Sphenopholis obtusata (Michx.) Scribn., S. nitida (Spreng.) Scribn., et S. pallens (Spreng.) Scribn.<sup>2</sup> ELEUSINE Gaertn.

\*aegyptia Raf. Chloris Aetn. 7. 1815, nom. = Dactyloctenium aegyptium (Linn.) Beauv. Agrost., Expl. Pl. 10. 1812; Aschers. & Graebn. Illus. Fl. Egypt. (Mém. Inst. Egypt. 2: 171. 1887); Richt. Fl. Europ. 2:68. 1889 (D. aegyptiacum Desf.).

†ciliata Raf. Précis Découv. Somiol. 45. 1814, descr., iter. Jour. Bot. (Desv.) 4:273. 1814; Chloris Aetn. 7. 1815,

nom. Sicily.

\*egyptia Raf. Précis Découv. Somiol. 1.c., nom., in nota Sicily=Dactyloctenium aegyptium (Linn.) Beauv.

ENDALLEX Raf. Seringe Bull. Bot. 1:220. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 84. 1833=Phalaris Linn. arundinacea Raf. ex Jacks\*. Ind. Kew. 1:839. 1893 (Phalaris arundinacea Linn.). North temperate regions.

ENDODIA Raf. Neogen. 4. 1825, descr. (Type Lecrsia lenticularis Michx.); Seringe Bull. Bot. 1:220. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 84. 1833=Leersia Sw. (1788), nom. conserv. (Homalocenchrus Mieg, 1762).

lenticularis Raf. ex Jacks\*. Ind. Kew. 1:840. 1893 (Leersia lenticularis Michx.). Eastern United States.

EROCHLOË Raf. Neogen. 4. 1825, descr.; Seringe Bull. Bot. 1:221. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 85. 1833=Eragrostis Host (1809).

amabilis Raf. ex Jacks\*. Ind. Kew. 1:886. 1893 (Poa ama-

bilis Linn.) = Eragrostis amabilis (Linn.) Wight & Arn. Pantropic.

spectabilis Raf. ex Jacks\*. 1.c. (Poa spectabilis Pursh). North America=Eragrostis spectabilis (Pursh) Steud.

FLEXULARIA Raf. Jour. Phys. Chim. Hist. Nat. 89:105. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 242, 1820, descr. Quid?

compressa Raf. Il.cc., descr. Kentucky, Ohio. #GLANDILOBA Raf. Seringe Bull. Bot. 1:220. 1830, descr., sect. Panicum Linn. (Type Panicum molle Michx.), iter. Schlecht. Linnaea 8: Lit.-Ber. 84. 1833 = Eriochloa H.B.K. (1815).

LEERSIA Sw. (1788), nom. conserv. (Homalocenchrus Mieg, 1760).

\*virgata Raf. Seringe Bull. Bot. 1:220. 1838, nom. sub Aplexia Raf., iter. Schlecht. Linnaea 8: Lit.-Ber. 81. 1833, sphalm.=Leersia virginica Willd. Eastern North America.

LEPTOCERCUS Raf. Am. Monthly Mag. Crit. Rev. 4:190. 1819, nom. nov. Lepturus R. Br.

\*LEPTOCEREUS Raf. Jour. Phys. Chim. Hist. Nat. 89:262. 1819, nom. nov. Lepturus R. Br.

<sup>2</sup> Scribner, F. L. The Genus Sphenopholis. Rhodora 8:137-146. 1906. Here Scribner called attention to the fact that Rafinesque's description did not appertain to the group to which the generic name Eatonia had long been misapplied. The synonyms cited above appear in a footnote that Scribner did not reproduce when he reprinted Rafinesque's original description of the genus and species.

LEPTOPYRUM Raf. Med. Repos. II. 5:351. 1808, nom. subnud.; Jour. Bot. (Paris) 2:168. 1809, nom. subnud. (aff. Avena Linn.). Quid?

tenellum Raf. Il.cc., nom. A. Gray, Am. Jour. Sci. 40:227.
1841, nom. subnud. Virginia.

MACRONAX Raf. Med. Repos. II. 5:353. 1808, nom. nov.
Arundinaria Michx.; Jour. Bot. (Paris) 2:172. 1809, nom. (Arundinaria Michx.).

MAYZEA Raf. Med. Fl. 2:241. 1830, nom. nov. Zea Linn.; Fl.

Tellur. 1:85, 86. 1836 [1837], nom. (Zea Linn.); Sylva Tellur. 1:17. 1838, nom. (Zea Linn.).

cerealis Raf. Med. Fl. l.c., nom. nov. Zea mays Linn.; New Fl. N. Am. 1:32. 1836, nom. (Zea mays Linn.).
var. gigantea Raf. Med. Fl. l.c., descr. Mexico. vestita Raf. Med. Fl. I.c., nom. subnud. South America.

MERATHREPTA Raf. Seringe Bull. Bot. 1:221. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 85. 1833 = Danthonia DC. (1805).

spicata Raf. ex Jacks\*. Ind. Kew. 2:211. 1894 (Avena spicata Linn.). North America = Danthonia spicata (Linn.) Beauv. \*MIAGIA Raf. Western Rev. Miscel. Mag. 1:93. 1819, nom., sphalm.=Miegia Pers. (1805) = Arundinaria Michx. (1803). \*arundinaria Raf. l.c., nom. (sphalm. "arupedinaria"). Kentulus — Miscia arundinaria Paf Bert. tucky=Miegia arundinaria Raf. Prob.=Arundinaria gigan-

tea (Walt.) Chapm.

MIEGIA Pers. (1805) = Arundinaria Michx. (1803).

arundinaria Raf. First Cat. Bot. Gard. Transylv. Univ. 14.

1824, nom. Kentucky. Prob.=Arundinaria gigantea (Walt.)

MONATHERA Raf. Am. Monthly Mag. Crit. Rev. 4:190. 1819, nom. nov. Monocera Ell. (1817); Jour. Phys. Chim. Hist. nom. nov. Monocera E.II. (1817); Jour. Phys. Chim. Hist. Nat. 89:262. 1819, nom. (Monocera E.II.) = Ctenium Panz. (1814), nom. conserv. (Campulosus Desv., 1810).

MOULINSIA Raf. Seringe Bull. Bot. 1:221. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 85. 1833=Aristida Linn. lanosa Raf. ex Jacks\*, Ind. Kew. 2:267. 1894 (Aristida lanosa Muhl.). Eastern United States.

†NEUROCTOLA Raf. ex Schlecht. Linnaea 8: Lit.-Ber. 85.

1833, descr.=Nevroctola Raf. (1825) = Uniola Linn.

NEVROCTOLA Raf. Neogen. 4. 1825, descr.; Seringe Bull.

Bot. 1:221. 1830, descr.; iter. Schlecht. Linnaea 8: Lit.

Ber. 1833 (Neuroctola) = Uniola Linn.

maritima Raf. ex Jacks\*. Ind. Kew. 2:311. 1894 (Uniola maritima Michx.) = Uniola paniculata Linn. Eastern North America.

paniculata Raf. ex Jacks\*. 1.c. (Uniola paniculata Linn.).

Eastern North America. NEVROLOMA Raf. Jour. Phys. Chim. Hist. Nat. 89:106. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 243. 1820, descr.= Glyceria R. Br. (1810), nom. conserv. (Panicularia Fabr.,

1763). canadensis Raf. ex Jacks\*. Ind. Kew. 2:311. 1894 (Briza canadensis Michx.). Eastern North America=Panicularia

canadensis O. Kuntze=Glyceria canadensis (Michx.) Trin. NOTONEMA Raf. Neogen. 4. 1825, nom.; Seringe Bull. Bot. 1:220. 1830, descr.; iter. Schlecht. Linnaea 8: Lit.-Ber. 84. 1833=Agrostis Linn. agrostoides Raf. ex Jacks\*. Ind. Kew. 2:319. 1894 (Agrostis

arachnoides Ell., non Poir.). Southern United States=

Agrostis elliottiana Schult.

\*ORIZOPSIS Raf. Med. Repos. II. 5:353. 1808, nom.; Jour. Bot. (Paris) 2:172. 1809, nom.; Am. Monthly Mag. Crit. Rev. 2:175. 1818, nom. = Oryzopsis Michx. (1803).

PANICUM Linn.

\*flexuosum Raf. Précis Découv. Somiol. 45. 1814, descr.; Jour. Bot. (Desv.) 4:273. 1814, descr., non Retz. (1783).

New Jersey. pumilum Raf. Med. Repos. II. 5:353. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. Central Atlantic United States. \*uniflorum Raf. Am. Monthly Mag. Crit. Rev. 2:120. 1817, descr.; Fl. Ludovic. 170. 1817, nom. Long Island, at Flat-

PASPALUM Linn. \*compressum Raf. Fl. Ludovic. 15. 1817, descr. (Panic 1 Rob. Voy. Louis. 3:335. 1817). Louisiana.

geniculatum Raf. 1.c., descr. (Panic 2 Rob. Voy. Louis. 3:

335. 1817). Louisiana.

#PHANOPYRUM Raf. Seringe Bull. Bot. 1:220. 1830, descr., sect. Panicum Linn. (Type Panicum gymnocarpon Ell.), iter. Schlecht. Linnaea 8: Lit.-Ber. 84. 1833=Panicum Linn. (Phanopyrum Nash.)

POA Linn. \*multicaulis Raf. ex M'Murtrie, Sketch. Louisv. 223. 1819,

tenuislora Raf. Med. Repos. II. 5:353. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. Central Atlantic United States. \*viridis Raf. Med. Repos. op. cit. 253, nom.; Jour. Bot. (Paris) l.c., nom. Central Atlantic United States. 
\*POAGRIS Raf. Fl. Tellur. 1:18. 1836 [1837], nom. nov. Poa

Linn.

PODOPOGON Raf. Neogen. 4. 1825, descr.; Seringe Bull. Bot. 1:221. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 85. 1833=Stipa Linn.

avenaceus Raf. ex Jacks\*. Ind. Kew. 2:580. 1894 (Stipa avenacea Linn.). Eastern North America.

barbatus Raf. ex Jacks\*. l.c. (Stipa barbata Michx.). Eastern

North America = Stipa avenacea Linn.
PORANTHERA Raf. Seringe Bull. Bot. 1:221. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 85. 1833, non Rudge (1811)

=Sorghastrum Nash (1901).
ciliata Raf. ex Jacks\*. Ind. Kew. 2:606. 1894 (Andropogon ciliatus Ell.). North America=seq.

nutans Raf. ex Jacks\*. l.c. (Andropogon nutans Linn.).
North America=Sorghastrum nutans (Linn.) Nash.

RYTILIX Raf. Seringe Bull. Bot. 1:219. 1830, nom. ("Manisuris granularis et myurus auct."), iter. Schlecht. Linnaea 8: Lit.-Ber. 83. 1833, p.p.=Hackelochloa O. Kuntze (1891), p.p. = Manisuris Linn. (1771)

glandulosa Raf. l.c., nom. [Manisuris granularis Linn.] = Hackelochloa granularis (Linn.) O. Kuntze. Tropical re-

gions.

SACCHARUM Linn.
\*polygamum Raf. Statist. Gen. Sicil. 29. 1810, nom. Sicily.

SANTIA Savi (1798) = Polypogon Desf. (1800).

unioloides Raf. Chloris Aetn. 7. 1815, nom. (Poa sicula Jacq.; Triticum unioloides Att.). Europe=Desmazeria (Demazeria) sicula (Jacq.) Dum.

\*SCHMIEDTIA Raf. Aut. Bot. 187. 1840, nom., Schmidtia Trattn. (1816), non Moench. (1802) = Coleanthus Seidl. (1817), nom. conserv.

SERICROSTIS Raf. Neogen. 4. 1825, descr.; Seringe Bull. Bot. 1:220. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 84. 1833 (Stipa sericea Michx.; Stipa diffusa Walt.) = Muhlenbergia Schreb. (1789).

SITANION Raf. Jour. Phys. Chim. Hist. Nat. 89:103. 1819,

SITANION Raf. Jour. Phys. Chim. Hist. Nat. 89:103. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 241. 1820, descr.; Herb. Raf. 40. 1833, nom.
elymoides Raf. Il.cc., descr.; Herb. Raf. 40. 1833, nom. Missouri=Sitanion hystrix (Nutt.) J. G. Smith.
SMIDETIA Raf. Aut. Bot. 187. 1840, descr. (Schmidtia Trattn.); Pennell, Bull. Torr. Bot. Club 48:95. 1921, nom. = Coleanthus Seidl. (1817), nom. conserv. (Schmidtia Trattn. 1816). Trattn., 1816).

\*humilis Raf. l.c., descr. (Schmidtia subtilis Trattn.). Bohemia = Coleanthus subtilis (Trattn.) Seidl.

SPIROTHEROS Raf. Seringe Bull. Bot. 1:221. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 85. 1833=Heteropogon Pers. (1807)

melanocarpus Raf. ex Jacks\*. Ind. Kew. 2:967. 1895 (Stipa melanocarpa Muhl.; Andropogon melanocarpus Ell.). Southeastern United States = Heteropogon melanocarpus (Ell.)

STEINCHISMA Raf. Seringe Bull. Bot. 1:220. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 84. 1835=Panicum Linn.

divaricata Raf. ex Jacks\*. Ind. Kew. 2:982. 1895 (Panicum divaricatum Michx.). Eastern North America hians Raf. ex Jacks\*. l.c. (Panicum hians Ell.). Southeastern

United States.

STIPA Linn.

\*cericea Raf. Neogen. 4. 1825, nom., sphalm.=S. sericea Michx. Eastern North America=Muhlenbergia capillaris (Lam.) Trin. var. filipes (M. A. Curtis) Chapm.

#TRIANTHUSA Raf. Am. Monthly Mag. Crit. Rev. 1:442. 1817, descr., subgen. Melica Linn. (Melica triflora Bigelow; M. aspera Desf.).

\*TRIATHERUS Raf. Am. Monthly Mag. Crit. Rev. 3:99. 1818 nom. nov. Monocera Ell. (1817) = Ctenium Panz. (1814),

nom. conserv. (Campulosus Desv., 1810).
\*aromaticus Raf. 1.c., nom. (Monocera aromatica Ell.).
Southeastern United States=Ctenium aromaticum (Walt.) Wood.

TRISIOLA Raf. Fl. Ludovic. 144. 1817, nom., nota (Uniola paniculata Linn.; U. maritima Michx.); Am. Monthly Mag. Crit. Rev. 2:175. 1817, nom., nota (Uniola paniculata Linn.); op. cit. 4:188, 190. 1819, nom., nota; Jour. Phys. Chim. Hist. Nat. 89:104. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 241. 1820, descr.; Seringe Bull. Bot. 1:221. 1830, nom., iter. Schlecht. Linnaea 8: Lit.-Ber. 85. 1833= Uniola Linn.

paniculata Raf. Fl. Ludovic, 144. 1817, nom., nota (Uniola paniculata Linn.; U. maritima Michx.). Louisiana = Uniola paniculata Linn. et quoad U. maritima Michx., Distichlis

spicata (Linn.) Greene.

\*TRISIOLA Raf. Neogen. 4. 1825, descr. (Uniola spicata Linn.; Festuca disticophylla Michx.) = Distichlis (1819).

TRITICUM Linn.

\*estivum Raf. Fl. Ludovic. 16. 1817, nom. (Elymus sp. Rob. Voy. Louis. 3:335. 1807). Louisiana = Triticum aestivum Linn.

TRIUNILA Raf. Neogen. 4. 1825, nom. nov. provis. Uniola

TRIXOSTIS Raf. Seringe Bull. Bot. 1:221. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 85. 1833=Aristida Linn.

gracilis Raf. ex Jacks\*. Ind. Kew. 2:1131. 1895 (Aristida gracilis Ell.). Eastern North America=Aristida longespica Poir.

\*URALEPIS Raf. Am. Monthly Mag. Crit. Rev. 4:190. 1819, nom. nov. Uralepsis Nutt. (1818) = Triplasis Beauv. (1812).

### CYPERACEAE

#ADENOTRIX Raf. Seringe Bull. Bot. 1:219. 1830, descr., sect. Scirpus Linn., iter. Schlecht. Linnaea 8: Lit.-Ber. 83. 1833 (Type Scirpus simplex Ell.) = Eleocharis R. Br. (1810).

\*AGISTRON Raf. Good Book 28. 1840, descr., 1913 repr. Nat. Fam. Carex. 28=Uncinia Pers. (1807).

\*erinacea Raf. l.c., nom. (Uncinia erinacea Pers.). South America.

\*phleoides Raf. 1.c., nom. (Uncinia phleoides Pers.). South America.

\*ANITHISTA Raf. Good Book 26. 1840, descr., 1913 repr. Nat. Fam. Carex. 26 = Carex Linn.

\*clavata Raf. 1.c., nom. (Carex clavata Thunb.). South Africa.

\*flava Raf. 1.c., nom. (Carex flava Linn.). North temperate

\*lacustris Raf. l.c., nom. (Carex lacustris Schkuhr). Europe. \*latifolia Raf. l.c., nom. (Carex latifolia Moench). North America = Carex plantaginea Lam.

\*littorea Raf. l.c., nom. (Carex littorea Labill.). Australia. \*patula Raf. l.c., nom. (Carex patula Schkuhr). Europe.

\*riparia Raf. l.c., nom. (Carex riparia Muhl.). North America. \*triticea Raf. 1.c., nom. (Carex triticea Wahlenb.). South Africa.

†APLOSTEMON Raf. Am. Monthly Mag. Crit. Rev. 1:441. 1817, descr.; op. cit. 4:188. 1819, nom.; Fl. Ludovic. 169. 1817, nom.; Jour. Phys. Chim. Hist. Nat. 89:105. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 242. 1820, descr. =Scirpus Linn.

atropurpureum Raf. ex Jacks\*. Ind. Kew. 1:163. 1893 (Scirpus atropurpureus Retz.). Temperate and tropical

regions = Eleocharis atropurpurea (Retz.) Presl.

†bracteatum Raf. Am. Monthly Mag. Crit. Rev. 1:441. 1817 descr. (Scirpus bracteatus Bigelow). White Mountains of New Hampshire=Scirpus cespitosus Linn. var. callosus Bigel.; see Fernald, Rhodora 23:44. 1921.

compressum Raf. Jour. Phys. Chim. Hist. Nat. 89:105. 1819. nom.; Isis von Oken 1820, 1: Lit. Anz. 242. 1820, nom. Hab.?

polytrichoides Raf. ex Jacks\*. Ind. Kew. 1:163. 1893 (Scirpus polytrichoides Retz.). Old World tropics=Fimbristylis polytrichoides (Retz.) R. Br.

†triquetrum Raf. Am. Monthly Mag. Crit. Rev. 1:441. 1817, descr.; Jour. Phys. Chim. Hist. Nat. 89:105. 1819, nom.; Isis von Oken 1820, 1: Lit. Anz. 242. 1820, nom. (Scirpus monander Rottb.). India=Fimbristylis argentea Vahl.

#ARETHRYON Raf. Seringe Bull. Bot. 1:219. 1830, descr.; sect. Cyperus Linn., iter. Schlecht. Linnaea 8: Lit.-Ber. 84. 1833=Pycreus Beauv. (1807)=Cyperus Linn.

CAREX Linn.

\*barati Raf. Good Book 26. 1840, nom., 1913 repr. Nat. Fam. Carex. 26, sphalm. Eastern North America=Carex barratti Torr.

disticha Raf. Med. Repos. II. 5:354. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom., non Huds. (1762). Central

Atlantic United States.

\*falcata Raf. Herb. Raf. 40. 1833, nom. Upper Missouri (Mandan Country) = Dakota.

\*flaccida Raf. l.c., nom. Upper Missouri (Mandan Country) = Dakota. \*hispanica Raf. Good Book 27. 1840, nom., 1913 repr. Nat. Fam. Carex. 27, nom. Spain.

\*macrophylla Raf. Herb. Raf. 40. 1833, nom. Upper Missouri

(Mandan Country) = Dakota.

\*sudeta Raf. op. cit. 27, nom., sphalm., 1913 repr. Nat. Fam. Carex. 27, nom. Europe = Carex sudetica Opiz.

tenella Raf. Med. Repos. II. 5:354. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. Central Atlantic United States.

#COSTULARIA Raf. Good Book 25. 1840, descr., subgen. Carex Linn., 1913 repr. Nat. Fam. Carex. 25 (Type Carex lupulina

Muhl.) = Carex Linn.

\*DEWEYA Raf. Good Book 26. 1840, descr., 1913, repr. Nat. Fam. Carex. 26. non Torr. & Gray (1840) = Carex Lim. \*anceps Raf. l.c., nom. (Carex anceps Muhl.). North America =Carex laxiflora Lam.

\*blanda Raf. l.c., nom. (Carex blanda Dewey). North Amer-

\*granularis Raf. 1.c., nom. (Carex granularis Muhl.). North America.

\*oligocarpa Raf. l.c., nom. (Carex oligocarpa Schkuhr). North America.

\*plantaginea Raf. 1.c., nom. (Carex plantaginea Lam.). North America.

#DEWISIA Raf. Seringe Bull. Bot. 1:219. 1830, descr. sect. Cyperus Linn. (C. diandrus Torr.; C. nuttalli Torr.), iter. Schlecht. Linnaea 8: Lit.-Ber. 84. 1833=Pycreus Beauv. (1807) = Cyperus Linn.

DICHISMUS Raf. Jour. Phys. Chim. Hist. Nat. 89:106. 1819, nom. subnud.; Isis von Oken 1820, 1: Lit. Anz. 242. 1820,

nom. subnud.=Scirpus Linn..

\*DIEMISA Raf. Good Book 27. 1840, descr., 1913 repr. Nat. Fam. Carex. 27=Carex Linn.

\*capitata Raf. l.c., nom. (Carex capitata Linn.). Europe.

\*cephalophora Raf. l.c., nom. (Carex cephalophora Muhl.). North America.

\*concolor Raf. 1.c., nom. (Carex concolor R. Br.). North America.

\*crinita Raf. l.c., nom. (Carex crinita Lam.). North America. \*filiformis Raf. l.c., nom. (Carex filiformis Linn.). Eurasia. \*peltita Raf. l.c., nom., sphalm. (Carex pellita Muhl.). North

America = Carex lanuginosa Michx.

\*pubescens Raf. I.c., nom. (Carex pubescens Muhl.). North America.

\*remota Raf. 1.c., nom. (Carex remota Linn.). Temperate and boreal regions.

\*retroflexa Raf. 1.c., nom. (Carex retroflexa Muhl.). North America.

\*rosea Raf. 1.c., nom. (Carex rosea Schkuhr). North America. \*splendens Raf. I.c., nom. (Carex splendens Thuill.). Europe. \*stricta Raf. 1.c., nom. (Carex stricta Good.). North America =Carex stricta Lam.

\*tenera Raf. 1.c., nom. (Carex tenera Dewey). North America. DIPLARINUS Raf. Jour. Phys. Chim. Hist. Nat. 89:106. 1819, nom., nota; Isis von Oken 1820, 1: Lit. Anz. 242. 1820, nom., nota=Scirpus Linn.

#DISTIMEX Raf. Good Book 83. 1840, nom. subnud., subgen. Carex Linn.=Carex Linn.

DISTIMUS Raf. Jour. Phys. Chim. Hist. Nat. 89:105. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 242. 1820, descr. = Pycreus Beauv. (1807) = Cyperus Linn.

flavescens Raf. ex Jacks\*. Ind Kew. 1:782. 1893 (Cyperus flavescens Linn.). Cosmopolitan.

flavicomus Raf. ex Jacks\*. l.c. (Cyperus flavicomus Michx.). Southeastern United States.

#DISTINAX Raf. Seringe Bull. Bot. 1:219. 1830, nom. subnud. sect. Carex Linn., iter. Schlecht. Linnaea 8: Lit.-Ber. 83. 1833 = Carex Linn. \*EDRITRIA Raf. Good Book 26. 1840, descr., 1913 repr. Nat. Fam. Carex. 26=Carex Linn.

\*compressa Raf. 1.c., nom. (Carex compressa Hose). Europe.

\*EDRITRIA (continued).

\*concinna Raf. 1.c., nom. (Carex concinna R. Br.). Arctic America.

\*dasycarpa Raf. 1.c., nom. (Carex dasycarpa Muhl.). Eastern North America.

\*digitalis Raf. 1.c., nom. (Carex digitalis Willd.). Eastern North America.

\*ferruginea Raf. 1.c., nom. (Carex ferruginea Scop.). Europe. \*formosa Raf. 1.c., nom. (Carex formosa Dewey). Eastern North America.

\*glaucescens Raf. l.c., nom. (Carex glaucescens Ell.). South-

eastern United States.

\*levigata Raf. 1.c., nom. (Carex laevigata Sm.). Europe. \*linki Raf. 1.c., nom. (Carex linkii Willd.). Mediterranean region. \*livida Raf. 1.c., nom. (Carex livida Willd.). Temperate and

boreal regions.

\*mucronata Raf. 1.c., nom. (Carex mucronata All.). Mediterranean region.

\*paludosa Raf. 1.c., nom. (Carex paludosa Good.). Temperate and boreal regions=Carex acutiformis Ehrh.

\*parviflora Raf. 1.c., nom. (Carex parviflora Host). Europe. \*petrea Raf. l.c., nom. (Carex petraea Wahl.). Europe, North America=C. rupestris All.
\*pubescens Raf. l.c., nom. (Carex pubescens Muhl.). Eastern

North America = Carex hirtifolia Mackenzie.

\*recurva Raf. l.c., nom. (Carex recurva Muhl.). Southeastern
United States = Carex cherokeenis Schwein.

\*rupestris Raf. 1.c., nom. (Carex rupestris All.). Europe.
\*schkuhri Raf. 1.c., nom. (Carex schkuhrii Willd.). Europe

Carex supina Willd.

\*supina Raf. l.c., nom. (Carex supina Willd.) Temperate and boreal regions.

\*sylvatica Raf. 1.c., nom. (Carex sylvatica Huds.). Europe. \*viridula Raf. 1.c., nom. (Carex viridula Michx.). Eastern North America.

\*vulpina Raf. 1.c., nom. (Carex vulpina Linn.). Europe. \*FACOLOS Raf. Good Book 26. 1840, 1913, repr. Nat. Fam.

Carex. 26, descr.=Carex Linn. \*brunnescens Raf. I.c., nom. (Carex brunnescens Poir.). Eu-

\*complanata Raf. 1.c., nom. (Carex complanata Torr. &

Hook.). North America. \*curta Raf. l.c., nom. (Carex curta Good.). England=Carex

canescens Linn.

\*limosa Raf. l.c., nom. (Carex limosa Linn.). Europe. \*FOREXETA Raf. Good Book 28. 1840, descr., 1913, repr. Nat. Fam. Carex. 28=Carex Linn.

\*nepalensis Raf. l.c., nom. (Carex nepalensis Spreng.). Nepal. \*phylostachys Raf. l.c., nom. (Carex phyllostachys C. A. Mey.). Caucasus, Persia. #FOVEOLIDIA Raf. Seringe Bull. Bot. 1:219. 1830, nom., iter.

Schlecht Linnaea 8: Lit.-Ber. 83. 1833, sect. Scleria Berg.

(Type, Scleria reticularis Michx.)

\*FUSARINA Raf. Good Book 28. 1840, nom., nota, 1913, repr. Nat. Fam. Carex. 28 (Type, Uncinia gracilis Thouars.). Tristan da Cunha=Uncinia Pers. (1807).

HEDYCHLOA Raf. ex Jacks\*. Ind. Kew. 1:1100. 1893=

Hedychloë Raf.=Kyllinga Rottb. (1773), non Killingia Adam (1763) non correct (Throngachhalan I. P. & C. Adans. (1763), nom. conserv. (Thryocephalon J. R. & G. Forst., 1776) = Cyperus Linn., sensu lat. fragrans Raf. ex Jacks\*. 1.c. (Hedychloë fragrans Raf.). Carollon de Illiania Villiana amila Michael

lina to Illinois=Kyllinga pumila Michx.

\*HEDYCHLOË Raf. Ann. Nat. Ann. Synop. 16. 1820, descr.=

praec. \*fragrans Raf. l.c., nom. (Kyllinga [Kyllingia] pumila Michx.); First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom. (Kyllinga [Kyllingia] pumila Michx.); Herb. Raf. 63.

1833, nom. (Kyllingia pumila Michx.). Carolina to Illinois= Kyllinga pumila Michx. \*pumila Raf. Med. Fl. 2:226. 1830, nom. (Kyllinga [Kyl-

lingia] pumila Michx.). Eastern North America=Kyllinga

pumila Michx.

#HELOTRIX Raf. Seringe Bull. Bot. 1:219. 1830, descr., sect. Scirpus Linn., iter. Schlecht. Linnaea 8: Lit.-Ber. 83. 1833 (Type Scirpus mucronatus Linn.) = Scirpus Linn.

#HIPPOTRIX Raf. Seringe Bull. Bot. 1:219. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 83. 1833, sect. Scirpus Linn. (Types Scirpus quadrangularis Thouars; S. equisetoides E11.).

\*ITHETA Raf. Good Book 28. 1840, descr., 1913 repr. Nat. Fam. Carex. 28=Carex Linn.

\*breviseta Raf. 1.c., nom. (Uncinia breviseta Torr.). North America=Carex filifolia Nutt.

\*KOLERMA Raf. Good Book 27. 1840, descr., 1913, repr. Nat. Fam. Carex. 27 = Carex Linn.

\*alata Raf. 1.c., nom. (Carex alata Torr.). North America.
#LENTEX Raf. Seringe Bull. Bot. 1:219. 1830, descr., sect.
Carex Linn., iter. Schlecht. Linnaea 8: Lit.-Ber. 83. 1833;
Good Book 83. 1840, descr., sub Carex, "subgen. vel subfam."=Carex Linn.

\*LONCOPERIS Raf. Good Book 27. 1840, descr., 1913 repr. Nat.

Fam. Carex. 27=Carex Linn.

\*bromoides Raf. 1.c., nom. (Carex bromoides Schkuhr). North America.

\*scoparia Raf. 1.c., nom. (Carex scoparia Schkuhr). North America.

\*stipata Raf. 1.c., nom. (Carex stipata Muhl.). North America. \*LOXANISA Raf. Good Book 25. 1840, descr.; 1913 repr. Nat. Fam. Carex. 25.=Carex Linn.

\*atrata Raf. op. cit. 26, nom. (Carex atrata Linn.). Boreal and Arctic regions.

\*gracilima Raf. l.c., nom. (Carex gracillima Schwein.). North America.

\*LOXOTREMA Raf. Good Book 25. 1840, descr., 1913 repr. Nat. Fam. Carex. 25=Carex Linn.

\*alpestris Raf. 1.c., nom. (Carex alpestris Dewey). North America.

\*capillaris Raf. 1.c., nom. (Carex capillaris Linn.). Boreal and Arctic regions.

\*castanea Kaf. 1.c., nom. (Carex castanea Wahl.). North America.

\*cuspidata Raf. 1.c., nom. (Carex cuspidata Host). Europe. \*davisi Raf. 1.c., nom. (Carex davisii Schwein. & Torr.).

North America. \*halseyi Raf. 1.c., nom. (Carex halseyana Dewey). North

America = Carex polymorpha Muhl. \*hitchcocki Raf. l.c., nom. (Carex hitchcockiana Dewey). North America.

\*leptostachys Raf. l.c., nom. (Carex leptostachya Ehrh.). Europe.

\*lusitanica Raf. l.c., nom. (Carex lusitanica Schkuhr). Europe. \*pilosa Raf. 1.c., nom. (Carex pilosa Scop.). Italy. \*triflora Raf. l.c., nom. (Carex triflora Schkuhr). Europe. \*tuberosa Raf. l.c., nom. (Carex tuberosa Degl.). Europe.

\*vestita Raf. l.c., nom. (Carex vestita Willd.). North America. #MARGALEIA Raf. Seringe Bull. Bot. 1:219. 1830, descr., sect. Scleria Berg., iter. Schlecht. Linnaea 8: Lit.-Ber. 83. 1833=Scleria Berg. (1765).

MEGADENUS Raf. Neogen. 4. 1825, descr.; Seringe Bull. Bot. 1:219. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 83. 1833=Eleocharis R. Br. (1810). capitatus Raf. ex Jacks\*. Ind. Kew. 2:185. 1894 (Scirpus capitatus Linn.). Pantropic=Eleocharis capitata (Linn.)

R. Br.

palustris Raf. ex Jacks\*. 1.c. (Scirpus palustris Linn.). Europe, North America = Eleocharis palustris (Linn.) R. Br. tuberculatus ex Jacks\*. l.c. (Scirpus tuberculatus Ell.). Eastern North America=Eleocharis tuberculosa (Michx.) R. Br.

\*MELTREMA Raf. Good Book 26. 1840, 1913 repr. Nat. Fam.

Carex. 26. nom. alt. Deweya Raf. = Carex Linn.

#MYTISKIS Raf. Good Book 26. 1840, descr., 1913 repr.
Nat. Fam. Carex. 26, subgen. Anithista Raf. (Type Carex \*NESKIZA Raf. Good Book 27. 1840, descr., 1913 repr. Nat. Fam. Carex. 27=Carex Linn. flava Linn.) = Carex Linn.

\*aquatilis Raf. 1.c., nom. (Carex aquatilis Wahl.). Boreal regions.

\*aurea Raf. l.c., nom. (Carex aurea Nutt.). North America. \*cespitosa Raf. I.c., nom. (Carex caespitosa Linn.). Boreal regions.

\*crinita Raf. l.c., nom. (Carex crinita Lam.). North America. \*glareosa Raf. l.c., nom. (Carex glareosa Wahl.). Scandinavia, North America.

\*loliacea Raf. l.c., nom. (Carex loliacea Linn.). Boreal regions.

\*salina Raf. 1.c., nom. (Carex salina Wahl.). Norway = C. lanceata Dewey. \*saxatilis Raf. 1.c., nom. (Carex saxatilis Schkuhr). Europe=

C. concolor R. Br. \*trisperma Raf. 1.c., nom. (Carex trisperma Dewey). North

\*OLAMBLIS Raf. Good Book 26. 1840, descr., 1913 repr. Nat. Fam. Carex. 26=Carex Linn.

\*barati Raf. l.c., nom. (Carex barratti Torr.). North America. \*barrattii Raf. ex Mackenzie N. Am. Fl. 18:349. 1935, nom.

\*ellioti Raf. l.c., nom. (Carex elliottii Schwein. & Torr.).

North America.

\*fraseri Raf. 1.c., nom. (Carex fraseri Andr.). North America=Cymophyllus fraseri (Andr.) Mackenzie.

\*hirsuta Raf. I.c., nom. (Carex hirsuta Willd.). North America=C. hirsutella Mackenzie.

\*laxa Raf. l.c., nom. (Carex laxa Wahl.). Northern Europe. \*miliacea Raf. l.c., nom. (Carex miliacea Muhl.). North America=C. prasina Wahl.
\*oakesi Raf. l.c., nom. (Carex oakesiana Torr.). North America

ica=C. oligosperma Michx.

\*verna Raf. I.c., nom. (Carex verna Chaix). North America= C. caryophyllea Latourr.

\*virescens Raf. 1.c., nom. (Carex virescens Muhl.). North America.

\*OLOTREMA Raf. Good Book 25. 1840, descr., 1913 repr. Nat. Fam. Carex. 25=Carex Linn.

\*acuminata Raf. l.c., nom. (Carex acuminata Schwein.).
Eastern North America = C. styloflexa Buckl.
\*brunnea Raf. l.c., nom. (Carex brunnea Thunb.). Japan.

\*collinsi Raf. 1.c., nom. (Carex collinsii Nutt.). North America.

\*filifolia Raf. 1.c., nom. (Carex filifolia Nutt.). North America.

\*gebhardi Raf. 1.c., nom. (Carex gebhardi Willd.). Europe. \*geminata Raf. 1.c., nom. (Carex geminata Schkuhr). New Zealand.

\*gynobasis Raf. 1.c., nom. (Carex gynobasis Vill.). Europe. \*juncifolia Raf. 1.c., nom. (Carex juncifolia Lightf.). Europe, North America = C. maritima Gunner.

\*leporina Raf. 1.c., nom. (Carex leporina Linn.). Northern regions.

\*oligocarpa Raf. 1.c., nom. (Carex oligocarpa Schkuhr). North America.

\*tetanica Raf. 1.c., nom. (Carex tetanica Schkuhr). North America.

\*umbellata Raf. 1.c., nom. (Carex umbellata Schkuhr). North America.

\*washingtoniana Raf. l.c., nom. (Carex washingtoniana Dewey). North America=C. concolor R. Br. #ONATEX Raf. Seringe Bull. Bot. 1:219. 1830, descr., sect.

Carex Linn., iter. Schlecht. Linnaea 8: Lit.-Ber. 83. 1833; Good Book 83. 1840, descr. "subgen. or subfam." = Carex Linn.

\*ONKERMA Raf. Good Book 27. 1840, descr., 1913 repr. Nat. Fam. Carex. 27=Carex Linn.

\*badia Raf. l.c., nom. (Carex badia Pers.). Europe. \*globularis Raf. l.c., nom. (Carex globularis Linn.). Northern Europe.

\*oederi Raf. 1.c., nom. (Carex oederi Retz.). Europe. \*rigida Raf. 1.c., nom. (Carex rigida Good.). Europe=C. concolor R. Br.

\*rotundata Raf. 1.c., nom. (Carex rotundata Wahlenb.). Northern Europe.

\*spherocarpa Raf. l.c., nom. (Carex sphaerocarpa Willd.). Europe.

\*OSCULISA Raf. Good Book 27. 1840, descr., 1913 repr. Nat. Fam. Carex. 27=Carex Linn.

\*acuta Raf. l.c., nom. (Carex acuta Linn.). Temperate regions. \*sudeta Raf. 1.c., nom. (Carex sudetica Opiz). Europe. \*trinervis Raf. 1.c., nom. (Carex trinervis Degl.). France.

#PAPYRUS Raf. Seringe Bull. Bot. 1:220. 1830, descr., sect. Cyperus Linn., iter. Schlecht. Linnaea 8: Lit.-Ber. 84. 1833 [Papyrus Willd., 1812-13] = Cyperus Linn.
PHYSIGLOCHIS Neck. = Carex Linn.

\*buxbaumi Raf. Good Book 27. 1840, nom., 1913 repr. Nat. Fam. Carex. 27 (Carex buxbaumii Wahlenb.). Europe.

\*dioica Raf. l.c., nom. (Carex dioica Linn.). Boreal regions. \*paniculata Raf. l.c., nom. (Carex paniculata Linn.). Boreal and temperate regions.

\*teretiuscula Raf. 1.c., nom. (Carex teretiuscula Good.). Europe=Carex diandra Schrank.

\*wormskoldi Raf. l.c., nom. (Carex wormskioldii Drej.). Europe=Carex scirpoidea Michx.

#PLANAREX Raf. Good Book 25. 1840, 1913 repr. Nat. Fam. Carex. 25 descr., subgen. Carex Linn. (Type Carex nigra A11.).

#PLANEURIS Raf. Good Book 25. 1840, descr., 1913 repr. Nat. Fam. Carex. 25, descr., subgen. Carex Linn. (Type Carex extensa Good.).

#RUGUNIA Raf. Seringe Bull. Bot. 1:219. 1830, descr., sect. Scleria Berg., iter. Schlecht. Linnaea 8: Lit.-Ber. 83. 1833=

Scleria Berg. (1765).

SCIRPUS Linn.

aquatilis Raf. Med. Repos. II. 5:353. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. Central Atlantic United States. \*bicolor Raf. Fl. Ludovic. 15. 1817, nom. subnud. (Scirpus sp. Rob. Voy. Louis. 3:334. 1807). Louisiana. nudus Raf. Atl. Jour. 1:18. 1832, descr. sub. S. typhinus Raf.

Virginia.

orgyalis Raf. Ann. Nat. Ann. Synop. 16. 1820, descr. New York and Pennsylvania = S. validus Vahl (1805).

pauciflorus Raf. Med. Repos. II. 5:353. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. Central Atlantic United

typhinus Raf. Atl. Jour. 1:18. 1832, descr. Pennsylvania.

SCLERIA Berg.

\*reticulata Raf. Seringe Bull. Bot. 1:219. 1830, nom., sphalm.,

iter. Schlecht. Linnaea 8: Lit.-Ber. 83. 1833=S. reticularis Michx. Eastern North America.

†SCURIA Raf. Anal. Nat. Tabl. Univ. 203. 1815, nom. (Carex sp. Linn.); Jour. Phys. Chim. Hist. Nat. 89:106. 1819, Jour. Phys. Chim. Hist. Nat. 89:106. 1819.

descr., subgen. Carex Linn.; Isis von Oken 1: Lit. Anz. 242. 1820, descr., subgen. Carex Linn.; Fl. Tellur. 1:33. 1836 [1837], nom.; Good Book 24. 1840, nom. (Vignea Beauv.), 1913 repr. Nat. Fam. Carex. 24=Carex Linn. STENOPHYLLUS Raf. Neogen. 4. 1825, descr.; Seringe Bull. Bot. 1:219. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 83. 1833=Bulbostylis Kunth, 1837, non DC., 1836, nom. conserv. (Stenophyllus Raf., 1825); see Fernald, Rhodora 40:391. 1938.

Rhodora 40:391. 1938.

cespitosus Raf. Il.cc., nom. (Scirpus stenophyllus Ell.). Southeastern United States=Bulbostylis stenophyllus (Ell.)

Fernald.

\*TEMNEMIS Raf. Good Book 27. 1840, descr., 1913 repr. Nat. Fam. Carex. 27=Carex Linn.

\*scouleri Raf. 1.c., nom. (Carex scouleri Torr.). North Amer-

ica=C. lyngbyei Hornem. #THRYONACHIS Raf. Seringe Bull. Bot. 1:219. 1830, descr. sect. Scirpus Linn., iter. Schlecht. Linnaea 8: Lit.-Ber. 83. 1833

TORREYA Raf. Jour. Phys. Chim. Hist. Nat. 89:105. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 242. 1820, descr.; Good Book 61. 1840, nom., nota, non Torreya Raf. (1818) = Pycreus Beauv. (1807) = Cyperus Linn.

cespitosa Raf. Il.cc., nom. (Cyperus caespitosus Eddy).

Eastern North America = Cyperus filicinus Vahl.

maritima Raf. Il.cc., nom. (Cyperus diandrus Torr.). Eastern

North America = Cyperus diandrus Torr.

#TRIODEX Raf. Jour. Phys. Chim. Hist. Nat. 89:106. 1819

#TRIODEX Raf. Jour. Phys. Chim. Hist. Nat. 89:106. 1819, descr., subgen. Carex Linn.; Isis von Oken 1820, 1: Lit. Anz. 243. 1820, descr., subgen. Carex Linn.=Carex Linn.
TRIODUS Raf. ex Jacks\*. Ind. Kew. 2:1120. 1895, sphalm.=

TRIPLIMA Raf. Am. Monthly Mag. Crit. Rev. 4:195. 1819.
descr., ut gen.; Jour. Phys. Chim. Hist. Nat. 89:106. 1819. descr., ut subgen. Carex Linn.; Isis von Oken 1820, 1: Lit. Anz. 242. 1820, descr., ut subgen. Carex Linn.; Herb. Raf. 40. 1833, nom.; Good Book 24. 1840, nom., 1913 repr. Nat. Fam. Carex. 24=Carex Linn.

\*bradburyi Raf. Herb. Raf. 40. 1833, nom. Upper Missouri (Mandan country) = Dakota.
\*longibracteata Raf. 1.c., nom. Upper Missouri (Mandan

country) = Dakota.

\*pauciflora Raf. l.c., nom. (Carex filifolia Nutt.). Western United States=C. filifolia Nutt. (Uncinia breviseta Torr.). #TRISMITEX Raf. Good Book 83. 1840, descr., subgen. Carex Linn. = Carex Linn.

#TRISTIMEX Raf. Seringe Bull. Bot. 1:218. 1830, descr., sect. Carex Linn., iter. Schlecht. Linnaea 8: Lit.-Ber. 83. 1833=Carex Linn.

VIGNEA Beauv.=Carex Linn.

America.

\*deweyi Raf. Good Book 26. 1840, nom., 1913, repr. Nat. Fam. Carex. 27 (Carex deweyana Schwein.). Eastern North America.

\*disperma Raf. op. cit. 27, nom. (Carex disperma Dewey). Eastern North America = Carex tenella Schkuhr, and Thuli (1784) . C. dishman \*exilis Raf. l.c., nom. (Carex exilis Dewey). Eastern North

VIGNEA (continued).

\*floridana Raf. l.c., nom. (Carex floridana Schwein.). South-eastern United States.

\*hispanica Raf. 1.c., nom (Carex hispanica Raf. 1.c., nom.). Spain.

\*muhlenbergi Raf. 1.c., nom. (Carex muhlenbergii Schkuhr.) Eastern North America.

\*setacea Raf. 1.c., nom. (Carex setacea Dewey). Eastern
North America=Carex vulpinoidea Michx.
\*siccata Raf. 1.c., nom. (Carex siccata Dewey). Eastern

North America.

\*straminea Raf. 1.c., nom. (Carex straminea Willd.). Eastern North America.

#### PALMAE

ARECA Linn.

\*floridana Raf. New Fl. N. Am. 3:95. 1836 [1838], nom. (Corypha palma Bartr. Trav. 6, 29. 1791, nom.) Florida=
Sabal palmetto (Walt.) Lodd.

\*CHAMEROPS Raf. Fl. Ludovic. 159. 1817, nom. = Chamaerops Linn.

\*louisiana Raf. 1.c., nom., nota (Ind. Kew. 1:505. 1893, Chamaerops louisiana Raf.). Louisiana.

CORYPHA Linn.

\*obliqua Raf. New Fl. N. Am. 3:95. 1836 [1838], nom. Florida.

\*ELATEUM Raf. Anal. Nat. Tabl. Univ. 202. 1815, nom. nov. Elate Linn.=Phoenix Linn.

SABAL Adans.

adiantinum Raf. Fl. Ludovic. 17. 1817, descr. (Latanier Rob. Voy. Louis. 3:338. 1807). Louisiana = Sabal minor (Jacq.)

ZELONOPS Raf. Fl. Tellur. 2:102. 1836 [1837], descr.=

Phoenix Linn.

pusilla Raf. I.c., descr. (Phoenix pusilla Lour. 1790 [non Phoenix pusilla Gaertn. Fruct. 1:24. t. 9. 1788]; P. farinifera Roxb. Pl. Coromandel 1:54. t. 74. 1795). Indo-China, India, p.p.=Phoenix loureiri Kunth (P. roebelinii O'Brien), p.p.=Phoenix farinifera Roxb.

#### ARACEAE

ACORUS Linn.

americanus Raf. New Fl. N. Am. 1:57. 1836, descr.; Aut. Bot. 196. 1840, nom. Canada to Virginia and Missouri= A. calamus Linn.

\*angustatus Raf. Aut. Bot. 196. 1840, descr. Alabama=seq. calamus Linn.

var. americanus Raf. Med. Fl. 1:25. f. 1. 1828, iter.
Man. Med. Bot. 25. f. 1. 1841. North America=
Acorus americanus Raf.=A. calamus Linn.

var. europeus Raf. op. cit. 26., descr. Europe=A. calamus Linn.

\*europeus Raf. New Fl. N. Am. 1:57. 1836 (Acorus calamus Linn var. europeus Raf.). Europe=A. calamus Linn.

Elini var. europeus Kal.). Europe A. calamus Linn. flexuosus Raf. Atl. Jour. 1:178. 1833, descr.; Herb. Raf. 25. 1833, descr.; New Fl. N. Am. 1:57. 1836, descr.; Aut. Bot. 197. 1840, descr. Arkansas, Texas A. calamus Linn. floridanus Raf. New Fl. N. Am. 1:57. 1836, descr.; Aut. Bot. 197. 1840, descr. (Acorus calamus sensu Ell.). Carolina Florida A. calamus Linn.

Bot. 197. 1840, descr. (Acorus calamus sensu Ell.). Carolina, Florida = A. calamus Linn.

verus Raf. Med. Fl. 1:26. 1828, nom., nota, iter. Man. Med. Bot. 26. 1841. India = A. calamus Linn.

\*ALOCASIA Raf. Fl. Tellur. 3:64. 1836 [1837], descr., non Neck. (1790)\*=Arisaema Mart. (1831).

lobata Raf. I.c., nom. Eastern North America = Arisaema triphyllum (Linn.) Schott.

\*pedata Raf. 1.c., nom. Eastern North America=Arisaema triphyllum (Linn.) Schott.

\*triphyla Raf. l.c., nom. Eastern North America=Arisaema triphyllum (Linn.) Schott.

virginica Raf. 1.c., nom. Eastern North America = Arisaema triphyllum (Linn.) Schott.

AMBROSINIA Linn.

\*alismoides Nutt. ex Raf. Aut. Bot. 188. 1840, nom., sub Rhizakenia ovata Raf., in syn.=Limnobium spongia Steud. (Hydrocharitaceae).

ARISARUM (Tourn.) Targ.-Toz.; Raf. Anal. Nat. Tabl. Univ.

202. 1815, nom.; Fl. Tellur. 3:62. 1836 [1837], descr. italicum Raf. Fl. Tellur. 3:63. 1836 [1837], nom. (Arum italicum Mill.). Europe=Arum italicum Mill. var. typicum Engl.

maculatum Raf. 1.c., nom. (Arum maculatum Linn.). Europe= Arum maculatum Linn. var. vulgare (Lam.) Engl. ovatum Raf. l.c., nom. (Arum ovatum Linn.). India=Lagenandra ovata (Linn.) Thwaites.

pictum Raf. l.c., nom. (Arum pictum Linn. f.). Europe= Arum pictum Linn. f.

\*serpentinum Raf. l.c., nom. nov. Arum arisarum Linn. Europe=Arisarum vulgare Targ.-Toz.

serpentrium Raf. ex Jacks\*. Ind. Kew. 1:186. 1893, sphalm.=

praec.

AROSMA Raf. Fl. Tellur. 3:66. 1836 [1837], descr.=Philodendron Schott (1829), nom. conserv. (Baursea Hoffmgg., 1824).

acutifolia Raf. 1.c., descr. (Caladium grandifolium Sims Bot. Mag. 53: t. 2643. 1826, non Willd.; Caladium simsii Hook.).

Guiana=Philodendron simsii (Hook.) Kunth.

obtusifolia Raf. l.c., descr. (Caladium fragrans [fragrantis-simum] Hook. Bot. Mag. 61: t. 3314. 1834). Guiana=
Philodendron fragrantissimum (Hook.) Kunth.

CALADIUM Vent.

\*fragrans Raf. Fl. Tellur. 3:66. 1836 [1837], nom. in syn., sphalm. (C. fragrantissimum Hook.). Guiana=Philodendron fragrantissimum (Hook.) Kunth.

\*CALADIUS Raf. New Fl. N. Am. 1:88. 1836, nom. sub Peltandra alba Raf. = Caladium Vent. (1800).

\*CALLADIUM Raf. Am. Monthly Mag. Crit. Rev. 2:267. 1818, nom.; Jour. Phys. Chim. Hist. Nat. 89:103. 1819, nom. = Caladium Vent. (1800).

\*sagittaefolium Raf. Jour. Phys. Chim. Hist. Nat. 89:103. 1819, nom.=Caladium sagittaefolium Vent.=Xanthosoma sagittifolium (Linn.) Schott. Tropical America.

\*virginicum Raf. 1.c., nom. [Arum virginicum Linn.?]. CALLAION Raf. New Fl. N. Am. 2:90. 1836 [1837], nom. nov. provis. Calla Linn. (Provenzalia Raf.) = Calla Linn.

bispatha Raf. 1.c., nom. alt. Provenzalia bispatha Raf. Oregon =Calla palustris Linn.

brevis Raf. l.c., nom. alt. Provenzalia brevis Raf. Alleghany Mountains = Calla palustris Linn.

heterophyla Raf. l.c., nom. alt. Provenzalia heterophyla Raf. Hudson Bay and Siberia = Calla palustris Linn. palustris Raf. 1.c., nom. alt. Provenzalia palustris Raf. Europe,

North America=Calla palustris Linn.

CALLARIA Raf. Am. Monthly Mag. Crit. Rev. 2:267. 1818, nom. nov. provis. Calla Linn.

\*COLLA Raf. Fl. Tellur. 4:8. 1836 [1838], nom. sub Otosma Raf., sphalm.=Calla Linn.

COLOCASIA Schott. \*cuculata Raf. Fl. Tellur. 3:65. 1836 [1837], nom. [Arum cucullatum Lour.]. China=Alocasia cucullata (Lour.)
Schott=? Colocasia esculenta (Linn.) Schott; see Merrill,
Trans. Am. Philos. Soc. II. 24(2):97. 1934.

peregrina Raf. l.c., nom. [Arum peregrinum Linn.?]. vulgaris Raf. l.c., nom. (Arum colacasia Linn.). Indo-Malaysia=Colocasia esculenta (Linn.) Schott.

DESMESIA Raf. Fl. Tellur. 3:63. 1836 [1837], descr.=Ty-

phonium Schott (1829).

orixensis Raf. 1.c., descr. (Arum orixense Andr. Bot. Rep. 5: t. 356. 1804; Ker-Gawl. Bot. Reg. 6: t. 450. 1820). India=Typhonium trilobatum (Linn.) Schott.

venosa Raf. l.c., descr. (Arum venosum Ait.; Lindl. Bot. Reg. 12: t. 1017. 1826). "Brazil" [India] = Sauromatum venosum (Ait.) Schott (S. guttatum (Wall.) Schott).

DRACONTIUM Linn.

\*camchatense Raf. Fl. Tellur. 4:13. 1836 [1838], nom.= D. camtchatcense Linn. = Lysichiton camtchatcense (Linn.) Schott. Northeastern Asia.

DRACUNCULUS Adans.

cannefolius Raf. Fl. Tellur. 3:65. 1836 [1837], nom. (Arum cannaefolium Linn. f.). Guiana =? Philodendron sp.

\*crassicaulis Raf. l.c., nom. Hab.?

divaricatus Raf. l.c., nom. (Arum divaricatum Linn.). India = Typhonium divaricatum (Linn.) Decne.

\*polyphylus Raf. 1.c., nom. (Arum dracunculus Linn.). Mediterranean region=Dracunculus vulgaris Schott (1832). spadiceus Raf. 1.c., nom. (Arum dracontium Linn.). Eastern North America = Arisaema dracontium (Linn.) Schott.

<sup>3</sup> Two of the following binomials are entered in Index Kewensis 1:85. 1893 under Alocasia Neck.

\*tenellus Raf. l.c., nom. Hab.?

trilobatus Raf. 1.c., nom. (Arum trilobatum Linn.). India=

Typhonium trilobatum (Linn.) Schott.

EUTEREIA Raf. Fl. Tellur. 4:12. 1836 [1838], descr.=Dracontium Linn.

nigricans Raf. l.c., descr. (Dracontium bolyphyllum Linn.). Guiana.

HOMAIDA Raf. Fl. Tellur. 3:63. 1836 [1837], descr. (non Homaid Adans. 1763)=Arisarum (Tourn.) Targ.-Toz. (1810)

proboscidia Raf. ex Jacks\*. Ind. Kew. 1:1170. 1893 (Aris-

arum proboscideum Savi). Italy.

KUNDA Raf. Fl. Tellur. 2:82. 1836 [1837], descr. = Amorphophallus Blume (1835), nom. conserv. (Candarum Reichb.,

1832).

verrucosa Raf. 1.c., descr. (Arum campanulatum Roxb. Pl. Coromand. 3:89. t. 272. 1819; Hook. Bot. Mag. 55: t. 2812. 1828; Arum ceylanicum polyphyllum Commel. Hort. Med. Amst. 1:101. t. 53. 1697; Tacca phallifera Rumph. Herb. Amb. 5:326. t. 113 [f. 2]. 1747; Schena Rheede Hort. Malabar. 11:35. t. 19. 1692). India, Ceylon, Moluccas = Amorphophallus campanulatus (Roxb.) Blume.

\*LECONTEA Raf. New Fl. N. Am. 1:85, 86. 1836, nom.; Fl. Tellur. 3:65. 1836 [1837], nom. sub Peltandra Raf. — Lecontia Cooper ex Torr. (1826) = Peltandra Raf. (1819).

#LEUCOSPATHA Raf. New Fl. N. Am. 1:86. 1836, descr. subgen. Peltandra Raf.

MEGOTIGEA Raf. Fl. Tellur. 3:64. 1836 [1837], descr.=Helicodiceros Schott (1853), nom. conserv. (Megotigea Raf., 1837).

crinita Raf. l.c., descr. (Arum crinitum Ait.; Lindl. Bot. Reg. 10: t. 831. 1824; A. muscivorum Linn.). Spain, Minorca Helicodiceros muscivorus (Linn.) Engl.

#NEIENSHENA Raf. Fl. Tellur. 3:65. 1836 [1837], descr., subgen. Dracunculus Adans.

ORONTIUM Linn. \*angustifolium Raf. Aut. Bot. 197. 1840, descr. Maryland, Virginia, Carolina=O. aquaticum Linn.

aquaticum Linn. Eastern North America.

var. glaucum Raf. l.c., nom. latifolium Raf. l.c., nom. obliquatum Raf. I.c., nom.

\*ellipticum Raf. 1.c., nom. alt. O. aquaticum Linn. Eastern

North America = praec.

\*vaginatum Raf. l.c., descr. Western Kentucky, Arkansas. OTOSMA Raf. New Fl. N. Am. 2:90. 1836 [1837], nom.; Fl. Tellur. 4:8. 1836 [1838], descr.=Zantedeschia Spreng. (1826), nom. conserv. (Aroides Heist., 1763; Richardia Kunth, 1818).

ethiopica Raf. Fl. Tellur. 1.c., descr. (Calla aethiopica Linn.).

Africa=Zantedeschia aethiopica (Linn.) Spreng.

†PELTANDRA Raf. Fl. Ludovic. 167. 1817, nom.; Jour. Phys. Chim. Hist. Nat. 89:103. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 241. 1820, descr.; Med. Fl. 2:251. 1830, nom.; New Fl. N. Am. 1:6, nom., 86. 1836, descr. (Lecontia Cooper ex Torr. 1826, Rensselaeria Beck, 1833); Fl. Tellur. 3:65. 1836 [1837], descr.; Good Book 45. 1840, nom.

Cooper ex Torr. 1826, Rensselaeria Beck, 1833); Fl. Tellur. 3:65. 1836 [1837], descr.; Good Book 45. 1840, nom. alba Raf. New Fl. N. Am. 1:88. 1836, descr. (Calla sagitifolia Michx.; Caladium \*glaucum Ell. Sketch 2:631. 1824). Carolina=Peltandra \*glauca Feay ex Wood, Class-Book, ed. 1861, 669. 1861=Peltandra sagittifolia (Michx.) Morong; see Fernald, Rhodora 50:59. 1948. angustifolia Raf. op. cit. 89, descr.; Fl. Tellur. 3:65. 1836 [1837], nom. (Calla virginica Michx., "varietat foliis angusto-oblongis" Michx.). Virginia=Peltandra virginica (Linn.) Schott & Endl., f. angustifolia (Raf.) Blake, Rhodora 14:106. 1914. Rhodora 14:106. 1914.

canadensis Raf. New Fl. N. Am. 1:87. 1836, descr. Canada to Pennsylvania=Peltandra virginica (Linn.) Schott &

hastata Raf. op. cit. 88, descr. (Arum virginicum sensu Ell.); Fl. Tellur. 3:65. 1836 [1837], nom. Carolina to Florida=Peltandra virginica (Linn.) Schott & Endl. ? f. hastifolia

Blake, op. cit. 105. heterophyla Raf. 11.cc., descr., nom.; Aut. Bot. 69. 1840,

nom. New Jersey, Pennsylvania Peltandra virginica (Linn.) Schott & Endl., f. heterophylla (Raf.) Blake. latifolia Raf. New Fl. N. Am. 1:87. 1836, descr.; Fl. Tellur. 3:65. 1836 [1837], nom.; Aut. Bot. 69. 1840, nom. New Jersey, Delaware=Peltandra virginica Schott & Endl., f. latifolia (Raf.) Blake, op. cit. 104.

\*sagittata Raf. Fl. Tellur. 3:65. 1836 [1837], nom. Ut

videtur=seq. sagittaefolia Raf. ex Jacks\*. Ind. Kew. 2:171. 1894 [Calla sagittifolia Michx.; Arum sagittifolium Pursh; Caladium sagittifolium Willd.]. Georgia, Florida=Peltandra sagittifolia (Michx.) Morong, Mem. Torr. Bot. Club 5:102. 1894.

undulata Raf. Jour. Phys. Chim. Hist. Nat. 89:103. 1894, descr., iter. Isis von Öken 1820, 1: Lit. Anz. 241. 1820; New Fl. N. Am. 1:87. 1836, descr.; Aut. Bot. 69. 1840, nom., nota. New York, Alleghany Mountains=Peltandra virginica (Linn.) Schott & Endl. tvirginica Raf. ex Steud. Nomencl. 602. 1821; Kunth, Enum. 3:43. 1841. (Assum aircivicum Linn.) Fostern North

3:43. 1841 (Arum virginicum Linn.). Eastern North America=Peltandra virginica (Linn.) Schott & Endl. walteri Raf. New Fl. N. Am. 1:88. 1836, descr.; Fl. Tellur.

3:65. 1836 [1837], nom. (Arum sagittifolium sensu Walt., Arum \*walteri Ell. Sketch 2:631. 1824, descr.). Carolina = Peltandra virginica (Linn.) Schott & Endl.; see Fernald, Rhodora 50:57. 1948. **PLEUROSPA** Raf. Fl. Tellur. 4:8. 1836 [1838], descr.=Mont-

richardia Crueg. (1854).

cordifolia Raf. l.c., descr. Madagascar. reticulata Raf. l.c., descr. (Arum arborescens Linn.). South America = Montrichardia arborescens (Linn.) Crueg.

PODOSPADIX Raf. Fl. Tellur. 4:14. 1836 [1838], descr.; op. cit. 124, nom., nota=Anthurium Schott (1829).

angustifolia Raf. op. cit. 124, descr. [Pothos crassinervius Jacq.]. Venezuela=Anthurium crassinervium (Jacq.) Schott.

\*harisi Raf. 1.c., descr. (Pothos harrisii Grah.; Hook. Exot. Fl. 3: t. 211. 1827). Brazil=Anthurium harrisii (Grah.) Engl.

\*humboldi Raf. Fl. Tellur. l.c., nom. (Pothos crassinervius sensu H.B.K. Nov. Gen. Sp. Pl. 1:63. 1815). South America.

humboldti Raf. ex Jacks\*. Ind. Kew. 2:580. 1894=praec. microphyla Raf. Fl. Tellur. l.c., descr. (Pothos microphyllus Hook. Bot. Mag. 56: t. 2953. 1829). Brazil=Anthurium microphyllum (Hook.) G. Don.

reticulata Raf. op. cit. 14, descr. (Pothos crassinervius Jacq. Ic. Pl. Rar. 3: t. 610. 1786-93). Venezuela=Anthurium

\*teres Raf. op. cit. 124, descr. (Pothos crassinervius sensu Hook. Bot. Mag. 57: t. 2987. 1830). British Guiana — Anthurium hookeri Kunth.

PROVENZALIA Adans. (1763); Raf. New Fl. N. Am. 2:90.
1836 [1837], nom., nota; Fl. Tellur. 3:67. 1836 [1837],
nom., nota=Calla Linn.

bispatha Raf. 11.cc., descr., nom. Oregon=Calla palustris Linn.

brevis Raf. New Fl. 1.c., descr. Alleghany Mountains, Mount Pocono=Calla palustris Linn.

heterophyla Raf. î.c., descr. Hudson Bay and Siberia=Calla palustris Linn.

palustris Raf. l.c., descr. [Calla palustris Linn.]. Europe, North America — Calla palustris Linn.

var. parvifolia Raf. l.c., descr.

#RENSELARIA Raf. New Fl. N. Am. 1:85, 86. 1836, nom., subgen. Peltandra Raf.; Fl. Tellur. 3:65. 1836 [1837], nom.

=Rensselaeria Beck (1833) = Peltandra Raf. (1819).

\*virginica Raf. New Fl. N. Am. 87, nom.=Rensselaeria virginica Beck=Peltandra virginica (Linn.) Kunth. Eastern North America

#RHOMPHALIS Raf. Fl. Tellur. 3:64. 1836 [1837], nom., subgen. Alocasia Neck. = Arisaema Mart. (1831).
SEGUINUM Raf. Fl. Tellur. 3:66. 1836 [1837], descr. = Dieffen-

bachia Schott (1829).

maculatum Raf. op. cit. 67, descr. (Arum seguinum Linn.; Caladium seguinum Willd.). Jamaica=Dieffenbachia Caladium seguinum Jamaica = Dieffenbachia

seguine (Jacq.) Schott.

SPATHYEMA Raf. Med. Repos. II. 5:352. 1808, nom. (Dracon-ATHYEMA Raf. Med. Repos. II. 5:352. 1808, nom. (Dracontium foetidum Linn.); Jour. Bot. (Paris) 2:171. 1809, nom. (Dracontium foetidum Linn.); Anal. Nat. Tabl. Univ. 203. 1815, nom.; Am. Monthly Mag. Crit. Rev. 2:267. 1818, nom., nota; op. cit. 4:191. 1819, nom., nota (Symplocarpus Salisb.); Am. Jour. Sci. 1:78. 1818, nom., nota; Jour. Phys. Chim. Hist. Nat. 89:261. 1819, nom., nota (Symplocarpus Salisb.); Fl. Tellur. 4:13. 1836 [1838], descr. (Ictodes Bigel., 1818; Symplocarpus Salisb.) = Symplocarpus Salisb. (1818) nom. consegu. (Shathyema Raf plocarpus Salisb. (1818), nom. conserv. (Spathyema Raf.,

SPATHYEMA (continued).

angusta Raf. Fl. Tellur. 4:13. 1836 [1838], descr. Eastern

angusta Raf. Fl. Tellur. 4:13. 1836 [1838], descr. Eastern North America—Symplocarpus foetidus (Linn.) Nutt. foetida Raf. Med. Repos. II. 5:352. 1808, nom. (Dracontium foetidum Linn.); Jour. Bot. (Paris) 2:171. 1809, nom.; A. Gray, Am. Jour. Sci. 40:228. 1841, nom.; Am. Jour. Sci. 1:78. 1818, nom. (fetida) (Pothos foetidus Ait.); Med. Fl. 2:230. 1830, nom. (Ictodes foetida Bigel.). Eastern North America—Symplocarpus foetidus (Linn.) Nutt. lanceolata Raf. Fl. Tellur. 4:13. 1836 [1838], descr. (Dracontium comischateense Linn.) Siberia—Lysichiton camt-

tium camtschatcense Linn.). Siberia=Lysichiton camt-

schatcense (Linn.) Schott. latifolia Raf. l.c., descr., nom. nov. Dracontium foetidum Linn. Eastern North America=Symplocarpus foetidus (Linn.)

†SPIROSPATHA Raf. New Fl. N. Am. 2:90. 1836 [1837]. nom. sub Provenzalia Adans. (Calla occulta Lour.); Fl. Tellur.

4:8. 1836 [1838], descr.=Homalomena Schott (1832).

occulta Raf. Fl. Tellur. 1.c., descr. (Calla occulta Lour.).

Indo-China (Annam)=Homalomena sp.; see Merrill, Trans.

Am. Philos. Soc. II. 24(2):97. 1935.

#STEIROPTILUS Raf. Fl. Tellur. 3:64. 1836 [1837], nom.

nov. provis., "gen. vel subgen." Desmesia Raf. (Type Desmesia correccio Raf.) = Typhonium, Schott (1820) mesia orixensis Raf.)=Typhonium Schott (1829).

STREPSANTHERA Raf. Fl. Tellur. 4:13. 1836 [1838], descr.

=Anthurium Schott (1829).

macrophyla Raf. 1.c., descr. (Pothos macrophylla sensu Hook. Bot. Mag. 55: t. 2801. 1828; P. grandifolia Jacq. Ic. Pl. Rar. 3: t. 610. 1786-93; Dracontium amplis foliis Plum. Descr. 48. t. 51. f. 1. t. 63. 1693). West Indies=Anthurium grandifolium (Jacq.) Kunth.

TAPANAVA Adans.; Raf. Fl. Tellur. 4:14. 1836 [1837], descr.—Pothos Linn.

=Pothos Linn.

chinensis Raf. l.c., descr. (Pothos scandens sensu Lindl. Bot. Reg. 16: t. 1337. 1830, non Linn.). China=Pothos chinensis (Raf.) Merr. Jour. Arnold Arb. 29:210. 1948 (P. seemanni Schott, 1857).

mann Schott, 1837).
indica Raf. 1.c., descr. (Pothos scandens Linn.). India, Ceylon.
TELIPODUS Raf. Fl. Tellur. 3:66. 1836 [1837], descr.=
Philodendron Schott (1829), nom. conserv. (Baursea

Hoffmgg., 1824).

grandifolius Raf. l.c., descr. (Arum grandifolium Jacq. Hort. Schoenbr. 2:32. t. 189. 1797; Caladium grandifolium sensu Hook. Bot. Mag. 61: t. 3345. 1834). Guiana=Philodendron grandifolium (Jacq.) Schott, et quoad Bot. Mag. t. 3345, P. simsii Kunth.

#### LEMNACEAE

HEMMA Raf. ex Pfitzer, Nomencl. 1:1606. 1875, nom., sphalm. = seq.

LEMNA Linn

dimidiata Raf. Am. Monthly Mag. Crit. Rev. 2:43. 1817, descr.; Fl. Ludovic. 169. 1817, nom. Long Island=Riccia natans Lim. (Ricciocarpus natans Corda).

minuta Raf. Med. Repos. II. 5:353. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. Central Atlantic United States. Prob.=L. perpusilla Torr.

#### RESTIONACEAE

BALOSKION Raf. Fl. Tellur. 4:32. 1836 [1838], descr.=Restio

dichotomum Raf. 1.c., descr. (Restio tetraphyllus Labill.). Australia

\*CHONDROPETALON Raf. Fl. Tellur. 4:33. 1836 [1838], descr.

\*tectorum Raf. 1.c., nom. (Restio tectorum Linn. f.). South Africa = Dovea tectorum (Linn. f.) Mast.

CHONDROPETALUM Rottb. = Elegia Linn.

tectorum Raf. ex Jacks\*. Ind. Kew. 1:522. 1893. South Africa

=Dovea tectorum (Linn. f.) Mast.

LEIENA Raf. Fl. Tellur. 4:33. 1836 [1838], descr. (Restio spp. 2-andris, 2-stylis) = Restio Linn.

#### XYRIDACEAE

JUPICA Raf. Fl. Tellur. 1:16. 1836 [1837], nom.; op. cit. 2:15. 1836 [1837], descr.=Xyris Linn. \*albiflora Raf. Aut. Bot. 190. 1840, nom. alt. Xuris [Xyris]

albiflora Raf. (Xyris pallescens Small). caerulea Raf. ex Jacks\*. Ind. Kew. 1:1261. 1893=seq.

\*cerulea Raf. Fl. Tellur. 2:15. 1836 [1837], descr. (Xyris americana Aubl.); Aut. Bot. 190. 1840, nom. Tropical americana Aubl.); Aut. Bot. 190. 1840, nom.

†RAMOTHA Raf. Fl. Tellur. 1:16. 1836 [1837], nom.; op. cit. 2:15. 1836 [1837], descr.; Aut. Bot. 189. 1840, nom.=Xyris Linn.

africana Raf. Fl. Tellur. 2:16. 1836 [1837], descr. (Xyris indica auct. Afr.). Africa.

operculata Raf. ex Jacks\*. Ind. Kew. 2:681. 1895 (Xyris operculata Raf. ex Jacks\*. Ind. Kew. 2:681. 1895 (Xyris operculata Raf. ex Jacks\*. Ind. Kew. 2:681. 1895 (Xyris operculata Raf. Ex Jacks\*. Ind. Kew. 2:681. 1895 (Xyris operculata Raf. Ex Jacks\*. Ind. Kew. 2:681. 1895 (Xyris operculata Raf. Ex Jacks\*. Ind. Kew. 2:681. 1895 (Xyris operculata Raf. Ex Jacks\*.) pubescens Raf. Fl. Tellur. 1.c., descr. (Xyris pubescens Poir.).

West Indies.

vera Raf. l.c., descr. (Xyris indica Linn.). India. SYNOLIGA Raf. Fl. Tellur. 2:15. 1836 [1837], descr.; Aut. Bot.

189. 1840, nom. sub Xuris Raf. = Xyris Linn.
pauciflora Raf. ex Jacks\*. Ind. Kew. 2:1025. 1893 (Xyris
pauciflora Willd.). Indo-Malaysia.

subulata Raf. ex Jacks\*. l.c. (Xyris subulata Ruiz & Pavon). Peru.

\*XIRIS Raf. Jour. Bot. (Paris) 2:173. 1809, nom., sphalm.= Xyris Linn.

\*tenuis Raf. l.c., nom. Eastern United States=Xyris torta J. E. Sm.

XURIS Adans.; Raf. Fl. Tellur. 2:14. 1836 [1837], descr.; Aut. Bot. 189. 1840, nom., nota=Xyris Linn.

\*albiflora Raf. Aut. Bot. 190. 1840, descr. (Xyris pallescens Small). Florida; see Fernald, Rhodora 46:4. 1944. \*bracteosa Raf. Fl. Tellur. 2:14. 1836 [1837], nom., sphalm.=

Xyris bracteata R. Br. Australia.

\*caroliniana Raf. Aut. Bot. 189. 1840, descr. (Xyris jupicai sensu Michx.; X. anceps Pers.; X. indica auct. Am.). New Jersey to Alabama and Kentucky = Xyris caroliniana Walt.

\*filifolia Raf. Fl. Tellur. 2:14. 1836 [1837], nom. Hab.? fistulosa Raf. 1.c., nom., Aut. Bot. 190. 1840, descr. (Xyris invega Raldy, ex Ell. ron R. Br.). Elorida to Louisiana =

juncea Baldw. ex Ell., non R. Br.). Florida to Louisiana= Xyris baldwiniana Schult. (1822)

\*flexuosa Raf. Aut. Bot. 189. 1840, descr. (Xyris flexuosa Muhl.; Xyris indica sensu Nutt.). New Jersey to Carolina

\*\*Exyris flexuosa Muhl.

\*obovata Raf. Fl. Tellur. 2:14. 1836 [1837], nom. Long Island, New Jersey, Chesapeake Bay.

\*retusa Raf. I.c., nom.; Aut. Bot. 190. 1840, descr. Kentucky to Alabama=Xyris torta J. E. Sm.

\*\*Tellur. Paf. Aut. Rot. 1.c. descr. Southern New Jersey=

\*spiralis Raf. Aut. Bot. 1.c., descr. Southern New Jersey= praec

XYRIS Linn. \*cylindrica Baldw. ex. Raf. Aut. Bot. 190. 1840, nom. in syn.

sub. Xuris albiflora Raf. =X. albiflora Raf. \*flexuosa Raf. Herb. Raf. 70. 1833, nom. Long Island, New Jersey, Chesapeake Bay=Xyris flexuosa Muhl. \*media Raf. Herb. Raf. 70. 1833, nom. Long Island, New

Jersey, Chesapeake Bay.

\*obovata Raf. 1.c., nom. Long Island, New Jersey, Chesapeake Bav.

\*retusa Raf. op. cit. 63, nom., 64, descr. Western Kentucky and Missouri=X. torta J. E. Sm. tenuis Raf. Med. Repos. II. 5:353. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. (Xiris). Central Atlantic United States=praec.

#### **ERIOCAULONACEAE**

ERIOCAULON Linn.

\*brevifolium Raf. Herb. Raf. 70. 1833, nom.; Aut. Bot. 189. 1840, descr. New Jersey and Texas. Ex descr.=Syngonanthus flavidulus (Michx.) Ruhl.

\*callosum Raf. Aut. Bot. 188. 1840, descr. Alabama.

filiforme Raf. Atl. Jour. 1:121. 1832, descr. New Jersey= ? E. compressum Lam.

flavidulum Michx. var. cinereum Raf. Aut. Bot. 189. 1840, nom. Alabama, Florida=Syngonanthus flavidulus (Michx.) Ruhl.

\*longifolium Raf. op. cit. 188., descr. Southern New Jersey= E. decangulare Linn.

pellucidum Michx. var. pumilum Raf. op. cit. 189, descr. Alleghany Mountains=seq. pumilum Raf. Atl. Jour. 1:121. 1832, descr. Catskill Mountains, New York=E. septangulare With. spathaceum Raf. 1.c., descr. Florida=Syngonanthus flavidulus (Michx.) Ruhl.

\*striatum Raf. Herb. Raf. 70. 1833, nom. Long Island to Chesapeake Bay.

#### BROMELIACEAE

\*CARATAS Raf. Anal. Nat. Tabl. Univ. 198. 1815, nom.

\*CARATAS Rat. Anal. Nat. Tabl. Univ. 198. 1815, nom. [Karatas Plum.] = Karatas Mill. (1754).

CODONANTHES Raf. ex Jacks\*. Ind. Kew. 1:577. 1893, sphalm. = Conanthes Raf. (1838) = Pitcairnia L'Hérit. (1789), nom. conserv. (Hepetis Sw., 1788).

albiflos Raf. ex Jacks\*. l.c. = Pitcairnia albiflos Herb. Brazil.

\*CONANTHES Raf. Fl. Tellur. 4:24. 1836 [1838], descr. = Pitcairnia L'Hérit. (1789), nom. conserv. (Hepetis Sw., 1788)

\*albiflos Raf. 1.c., descr. (Pitcairnia albiflos Herb. ex Hook. Bot. Mag. 53: t. 2641. 1826). Brazil.

DENDROPOGON Raf. Neogen. 3. 1825, descr.; Fl. Tellur. 4:25.

1836 [1838], descr. = Tillandsia Linn.

tusneoides Raf. Med. Fl. 2:216. 1830, nom. (Tillandsia usneoides Linn.); Fl. Tellur. 4:25. 1836 [1838], nom.; Aut. Bot. 198. 1840, nom. Carolina to Louisiana=Tillandsia usneoides Linn.

ERIOSTAX Raf. Fl. Tellur. 4:25. 1836 [1838], descr. = Aechmea Ruiz & Pavon (1794), nom. conserv. (Hoiriri Adans.,

1763).

glauca Raf. 1.c., descr. (Bromelia melantha Ker-Gawl. Bot. Reg. 9: t. 766. 1824). West Indies=Aechmea bromeliifolia (Rudge) Baker. EUCALLIAS Raf. Fl. Tellur. 4:25. 1836 [1838], descr.=

Billbergia Thunb. (1823).

versicolor Raf. l.c., descr. (Bromelia sebrina Herb. Bot. Mag. 53: t. 2686. 1826). Brazil=Billbergia zebrina (Herb.) Lind1.

HEXALEPIS Raf. Fl. Tellur. 4:24. 1836 [1838], descr. = Vriesea

Lindl. (1843), nom. conserv. (Hexalepis Raf., 1838).

psittacina Raf. l.c., descr. (Tillandsia psittacina Hook. Bot.

Mag. 55: t. 2841. 1828). Brazil=Vriesea psittacina
(Lindl.) Mez.

\*KARAGUATA Raf. Aut. Bot. 198. 1840, nom. sub Tillandsia cinerea Raf.=Tillandsia Linn.

\*cinerea Raf. l.c., nom. alt. Tillandsia cinerea Raf. (Tillandsia

recurvata Linn.). Florida. \*dilatata Raf. op. cit. 199, nom. nov. provis. Tillandsia utricu-

lata Linn., Florida. TILLANDSIA Linn.

\*cinerea Raf. Aut. Bot. 198. 1840, descr. (T. recurvata sensu Michx.). Florida=T. recurvata Linn. (Diaphoranthema recurvata Beer).

\*convoluta Raf. op. cit. 199, descr. Brazil.

\*dilatata Raf. 1.c., nom. nov. provis. (Tillandsia utriculata Linn.; T. polystachya Muhl.). Southeastern United States =Tillandsia utriculata Linn.

#### COMMELINACEAE

ALLOSPERMA Raf. Fl. Tellur. 4:122. 1836 [1838], descr.= Commelina Linn.

tuberosa Raf. I.c., descr. (Commelina tuberosa Linn.). Mexico. †ALLOTRIA Raf. Med. Fl. 2:212. 1830, nom.; Fl. Tellur. 3:70.

1836 [1837], descr. = Commelina Linn.
scabra Raf. Fl. Tellur. l.c., descr. (Commelina virginica Linn.). Virginia, Carolina.

ANANTHOPUS Raf. Fl. Ludovic. 20. 1817, descr.; op. cit. 148, nom., nota; Jour. Phys. Chim. Hist. Nat. 89:261. 1819, nom., nota (=Commelina Linn. fide Raf. 1.c); Med. Fl. 2:212. 1830, nom.; Fl. Tellur. 3:69. 1836 [1837], descr.= Commelina Linn.

clandestinus Raf. Fl. Ludovic. op. cit. 10, nom., 21, descr. 1817

(Ophrys première Rob. Voy. Louis. 3:351. 1807); Fl. Tellur. 3:69. 1836 [1837], descr. Louisiana. cordatus Raf. Fl. Ludovic. 22. 1817, descr. (Ophrys seconde Rob. Voy. Louis. 3:352. 1807); Fl. Tellur. l.c., descr. Louisiana.

undulatus Raf. Fl. Tellur. 3:70. 1836 [1837], descr. Alabama. APLOLEIA Raf. Fl. Tellur. 2:17. 1836 [1837], descr.=Callisia Linn. (1758).

diffusa Raf. 1.c., descr. (Tradescantia monandra Sw.). Haiti =Callisia umbellulata Lam.

COMMELINA Linn.

\*glomerata Raf. Herb. Raf. 66. 1833, nom. Appalachian Mountains.

\*longifolia Raf. Atl. Jour. 1:147. 1832, descr. Florida. \*undulata Raf. Herb. Raf. 63. 1833, nom. Kentucky or Illinois.

#DICLISA Raf. Fl. Tellur. 4:122. 1836 [1838], nom., subgen. Dirtea Raf. (Dirtea africana Raf.; Commelina communis

auct. Afr.) = Commelina Linn.

DILASIA Raf. Fl. Tellur. 4:122. **ASIA** Raf. Fl. Tellur. **4**:122. 1836 [1838], descr. Genus validus fide Pichon Not. Syst. **12**:236. 1946 (Streptylis Raf. 1838; Murdannia Royle, 1839; Dichoespermum Wight, 1853; Prionostachys Hassk., 1866; Baoulia A. Chev., 1912; Phacneilema Brückn., 1926).
vaginata Raf. op. cit. 123, descr. (Commelina vaginata Linn.).

India.

DIRTEA Raf. Fl. Tellur. 3:69. 1836 [1837], descr.=Commelina Linn.

africana Raf. op. cit. 4:122. 1836 [1838], descr. (Commelina communis auct. Afr.) = Commelina africana Linn. japonica Raf. op. cit. 3:69. 1836 [1837], descr. (Commelina japonica Thunb.). Japan=Aneilema japonicum (Thunb.) Kunth.=Dilasia sp. DITELESIA Raf. Fl. Tellur. 3:69. 1836 [1837], descr.=Dilasia

nudiflora Raf. 1.c., nom. (Commelina nudiflora Linn.). India=

\*EOTHINANTHES Raf. New Fl. N. Am. 2:83. 1837; Fl. Tellur. 2:16. 1836 [1837], nom. alt. provis. Etheosanthes Raf. (1825) = Tradescantia Linn., fide Pichon, Not. Syst. 12:234. 1946.

ETHEOSANTHES Raf. Neogen. 3. 1825, descr.; Fl. Tellur. 2:16. 1836 [1837], descr.; New Fl. N. Am. 2:83. 1836 [1837], descr.=praec.

ciliata Raf. Il.cc., descr.; Atl. Jour. 1:179. 1833, nom.; Herb. Raf. 26. 1833, nom. Louisiana, Texas.

EUDIPETALA Raf. Fl. Tellur. 3:68. 1836 [1837], descr.=

Commelina Linn. deficiens Raf. l.c., descr. (Commelina deficiens Hook. Bot. Mag. 53: t. 2644. 1826). Brazil=Commelina virginica Linn.

GIBASIS Raf. Fl. Tellur. 2:16. 1836 [1837], descr.=Tradescantia Linn.

pulchella Raf. 1.c., descr. (Tradescantia pulchella H.B.K.). Mexico.

**HEMINEMA** Raf. Fl. Tellur. 2:17. 1836 [1837], descr.; op. cit. 4:122. 1836 [1838], descr.=Tripogandra Raf. (1837). multiflora Raf. l.c., 17, descr. (Tradescantia multiflora Sw.). West Indies=Tripogandra multiflora (Sw.) Raf.

LARNALLES Raf. Fl. Tellur. 3:70. 1836 [1837], descr.=Commelina Linn.

dichotoma Raf. op. cit. 71, descr. Appalachian Mountains. glauca Raf. l.c., descr. Kentucky, Illinois.

LEIANDRA Raf. Fl. Tellur. 2:17. 1836 [1837], descr. = Tradescantia Linn.

cordifolia Raf. 1.c., descr. (Tradescantia cordifolia Sw.). West Indies.

divaricata Raf. 1.c., descr. (Commelina hexandra Aubl.).
Tropical America = Dichorisandra hexandra (Aubl.) Standl. (D. aubletiana Schult. f.).

NEPHRAËLES Raf. ex Jacks\*. Ind. Kew. 2:307. 1894=seq.

parviflora Raf. ex Jacks\*. l.c.=seq.
\*NEPHRALLES Raf. Fl. Tellur. 3:70. 1836 [1837], descr.= Commelina Linn.

\*parviflora Raf. 1.c., descr. Kentucky, Tennessee.

\*NEPHRALLUS Raf. First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom.; Raf. Med. Fl. 2:212. 1830, nom.=praec. \*parviflorus Raf. First Cat. Bot. Gard. Transylv. Univ. 14.

1824, nom. Kentucky=praec.

OVIDIA Raf. Fl. Tellur. 3:68. 1836 [1837], descr.=Commelina Linn.

gracilis Raf. 1.c., descr. (Commelina gracilis Ruiz & Pavon, Fl. Peruv. 1:44. t. 72. 1798; Hook. Bot. Mag. 58: t. 3047. 1831; C. formosa Grah.). South America = Commelina diffusa Burm. f. (C. nudiflora auct., non Linn.).

PETALOXIS Raf. Fl. Tellur. 2:83. 1836 [1837], descr.= Dichorisandra Milkan (1820), nom. conserv. (Stickmannia

Necker, 1790).

purpurea Raf. 1.c., descr. (Dichorisandra oxypetala Hook. Bot. Mag. 54: t. 2721. 1827). Brazil.

PHYODINA Raf. Fl. Tellur. 2:16. 1836 [1837], descr. Genus validus fide Pichon, Not. Syst. 12:235. 1946. (Cuthbertia Small, 1903). gracilis Raf. 1.c., nom. (Tradescantia gracilis H.B.K.). South

America.

POGOMESIA Raf. Fl. Tellur. 3:67. 1836 [1837], descr.=Tinantia Scheidw. (1839), nom. conserv. (Pogomesia Raf.

undata Raf. l.c., descr. (Tradescantia undata Humb. & Bonpl.; Lindl. Bot. Reg. 17: t. 1403. 1831). Cumana (Venezuela) and Mexico=Tinantia erecta (Jacq.) Schlecht. (T. fugax Scheidw.).

SARCOPERIS Raf. Fl. Tellur. 2:16. 1836 [1837], descr.; op. cit. 4:122. 1836 [1838], descr. ampl. (Zanonia Craemer,

cit. 4:122. 1836 [1838], descr. ampl. (Zanonia Craemer, 1803, non Linn.) = Campelia L. C. Rich. (1808).

bibracteata Raf. op. cit. 2:16. 1836 [1837], nom. (Zanonia bibracteata Craemer). Mexico to Brazil = Campelia zanonia (Linn.) H.B.K.

SIDERASIS Raf. Fl. Tellur. 3:67. 1836 [1837], descr.=Pyrrheima Hassk. (1869).

acaulis Raf. I.c., descr. (acaules) (Tradescantia fuscata Lodd. Bot. Cab. 4: t. 582. 1820). Brazil=Pyrrheima fuscata (Lodd.) Brückn. (P. loddigesii Hassk.).

SIPHOSTIMA Raf. Fl. Tellur. 2:16. 1836 [1837], descr.=

Cyanotis D. Don (1825).

cristata Raf. 1.c., nom. (Tradescantia cristata Jacq.). India= Cyanotis cristata (Linn.) Roem. & Schult.

STICKMANNIA Neck. (1790) = Dichorisandra Mikan (1820), nom, conserv.

africana Raf. ex Jacks\*. Ind. Kew. 2:996. 1895 (Commelina

africana Linn.). South Africa. guayanensis Raf. ex. Jacks\*. 1.c. (Commelina guaianensis Klotzsch). Guiana=Athyrocarpus persicariaefolius (DC.) Hemsl.

longicollis Raf. ex Jacks\*. 1.c. (Commelina longicaulis Jacq.). Pantropic=Commelina diffusa Burm. f. (C. nudiflora auct. non Linn.).

mollis Raf. ex Jacks\*. l.c. (Commelina mollis Jacq.). Pantropic=Commelina benghalensis Linn.

STREPTYLIS Raf. Fl. Tellur. 4:122. 1836 [1838], descr.= Dilasia Raf. (1838).

bracteolata Raf. 1.c., nom. (Commelina bracteolata Lam.; C. spirata Linn.). Indo-Malaysia.

TALIPULIA Raf. Fl. Tellur. 2:17. 1836 [1837], descr., nom. provis. sub Aploleia Raf. (Type Tradescantia malabarica Linn.)=Aneilema R. Br. (1810).

TONNINGIA Neck. = Cyanotis D. Don (1825), nom. conserv.

(Tonningia Neck., 1790).
\*axillaris Raf. Fl. Tellur. 2:16. 1836 [1837], nom. (Tradescantia axillaris Linn.). Indo-Malaysia=Cyanotis axillaris (Linn.) Roem. & Schult.

\*speciosa Raf. l.c., nom. (Tradescantia speciosa Linn.). South Africa=Cyanotis speciosa (Linn.) Hassk. (Cyanotis nodiflora Kunth).

TRADESCANTIA Linn.

axillaris Raf. New Fl. N. Am. 2:87. 1836 [1837], descr. Central and western Kentucky=T. subaspera Ker-Gawl. var. flexuosa Raf. l.c., descr. subaspera Raf. l.c., descr.

barbata Raf. op. cit. 85, descr. Western Kentucky and Illinois = T. ohiensis Raf. (T. canaliculata Raf.).

var. pumila Raf. 1.c., descr. Kentucky.
trachiloma Raf. op. cit. 86, descr. Kentucky.
brevicaulis Raf. Atl. Jour. 1:150. 1832, descr.; New Fl. N.
Am. 2:86. 1836 [1837], descr. Kentucky, Illinois=T. virginiana Linn. fide Anders. & Woods. Contr. Arnold Arb. 9:61. 1935.

†canaliculata Raf. First Cat. Bot. Gard. Transylv. Univ. 16. 1824, nom.; Atl. Jour. 1:150. 1832, descr.; New Fl. N. Am. 2:86. 1836 [1837], descr. Kentucky, Missouri=T. ohiensis Raf.; see Fernald, Rhodora 46:311. 1944. \*ciliata Raf. New Fl. N. Am. 2:85. 1836 [1837], nom. nov.

provis. Tradescantia virginica Linn. var. angustifolia Raf.

=T. virginiana Linn.

discolor Raf. New Fl. N. Am. 2:87. 1836 [1837], descr., non L'Hérit. (1788). Florida, Alabama=T. hirsutiflora Bush (1904); see Fernald, Rhodora 46:311. 1944. var. ramosa Raf. 1.c., descr.

divaricata Raf. Atl. Jour. 1:148. 1832, descr.; New Fl. N. Am. 2:88. 1836 [1837], descr. Florida=T. ohiensis Raf. (T. canaliculata Raf.).

fflexuosa Raf. First Cat. Bot. Gard. Transylv. Univ. 16. 1824, nom.; Atl. Jour. 1:150. 1832, descr. Kentucky, Missouri= T. subaspera Ker-Gawl.

graminifolia Raf. Atl. Jour. 1:148. 1832, descr. Florida= T. rosea Vent.

levigata Raf. New Fl. N. Am. 2: 85. 1836 [1837], descr. Appalachian Mountains of Virginia and Carolina=T. ohiensis Raf. (T. canaliculata Raf.).

var. incarnata Raf. l.c., descr.

var. incarnata Kat. l.c., descr.
ohiensis Raf. Précis Découv. Somiol. 45. 1814, descr.; Jour.
Bot. (Desv.) 4:272. 1814, descr.; New Fl. N. Am. 2:84.
1836 [1837], descr. Ohio (T. canaliculata Raf., 1832); see
Fernald, Rhodora 46:311. 1944.
\*ohioensis Raf. ex Anders. & Woods. Contr. Arnold Arb.
9:75. 1935, nom. in syn. sub T. canaliculata Raf. = praec.
pumila Raf. New Fl. N. Am. 2:86. 1836 [1837], descr. Kentucky = T. virginiana Lin.

tucky=T. virginiana Lin. \*purpurea Raf. op. cit. 84, nom. alt. Tradescantia virginica Linn. var. purpurea Raf. = T. virginiana Linn. reflexa Raf. op. cit. 87, descr. Alabama = T. ohiensis Raf. (T.

canaliculata Raf.).

var. drepisia Raf. op. cit. 88, descr.

var. drepisia Raf. op. cit. 80, Alabama=praec.
rosea Vent. var. pauciflora Raf. l.c., hom., nota (Tradescantia graminifolia Raf.). Alabama, Florida=T. rosea Vent.
†rupestris Raf. First. Cat. Bot. Gard. Transylv. Univ. 16.
1824, nom.; Atl. Jour. 1:18, nom., 150, descr. 1832; New
Fl. N. Am. 2:86. 1836 [1837], descr. Ohio, Indiana, Kentucker T. vicinioses I. Irose tucky=T. virginiana Linn.

virginica Linn.=T. virginiana Linn. var. alba Raf. New Fl. N. Am. 2:84. 1836 [1837] var. alba Rat. New Fl. N. Am. 2:84. 1836 [1837]
(Tradescantia virginica Linn., fl. albo Schult.;
Hook. Bot. Mag. 63: t. 3501. 1836).
angustifolia Raf. op. cit. 85, descr. Pennsylvania,
Maryland, Virginia.
barbata Raf. op. cit. 84, descr. Cultivated.
purpurea Raf. 1.c., descr. Cultivated.
ramosa Raf. op. cit. 85, descr. Cultivated.
TRIPAGANDRA Raf. ex Jacks\*. Ind. Kew. 2:1121. 1895,
sphalm = seq.

sphalm.=seq.
multiflora Raf. ex Jacks\*. l.c.,=seq.
\*TRIPOGANDRA Raf. Fl. Tellur. 2:16. 1836 [1837], descr.
Genus validus fide Pichon, Not. Syst. 12:236. 1946, ut
Tripagandra (Heminema Raf., 1837; Descantaria Schlecht., 1853; Disgrega Hassk., 1866).

\*multiflora Raf. l.c., descr. (Tradescantia multiflora Sw.; Jacq. Ic. Pl. Rar. 2: t. 355. 1786-93; T. procumbens Willd.).

Venezuela. \*TROPITIA Raf. ex Pichon, Nat. Syst. 12:234. 1946, sphalm.

#TROPITRIA Raf. Fl. Tellur. 3:68. 1836 [1837], descr., provis.

subgen. Tradescantia Linn. = Tradescantia Linn. crassula Raf. ex Jacks\*. Ind. Kew. 2:1133. 1893 (Tradescantia crassula Link & Otto). South America.

#### PONTEDERIACEAE

\*CADACYA Raf. Anal. Nat. Tabl. Univ. 200. 1815, nom.=
Kadakia Raf. (1837)=Monochoria Presl (1827).

CALCARUNIA Raf. Med. Fl. 2:106. 1830, descr. (Pontederia hastata Linn.); Fl. Tellur. 2:9. 1836 [1837], nom. in syn. sub Kadakia Raf.=Monochoria Presl (1827).

\*acuminata Raf. Fl. Tellur. 2:10. 1836 [1837], nom. (Pontederia dilatata Ham.) India—Monochoria hastata (Linn.)

tederia dilatata Ham.). India=Monochoria hastata (Linn.)

hastata Raf. ex Jacks\*. Ind. Kew. 1:380. 1893 (Pontederia hastata Linn.). Tropical Asia = Monochoria hastata (Linn.) Solms.

CARIGOLA Raf. Fl. Tellur. 2:10. 1836 [1837], nom.; New Fl. N. Am. 2:78. 1836 [1837], nom. = Monochoria Presl (1827). hastata Raf. Fl. Tellur. 1.c., descr. (Pontederia hastata Linn.).

\*ENDOLIMNA Raf. New Fl. N. Am. 2:75. 1836 [1837], nom. nov. Lunania Raf. (1830) = Heteranthera Ruiz & Pavon (1794).

GOMPHIMA Raf. Fl. Tellur. 2:10. 1836 [1837], nom.; New Fl. N. Am. 2:75. 1836 [1837], nom.=Monochoria Presl (1827). vaginalis Raf. Fl. Tellur. 1.c., descr. (Pontederia vaginalis Linn.). Tropical Asia=Monochoria vaginalis (Linn.) Presl. KADAKIA Raf. Fl. Tellur. 2:9. 1836 [1837], descr.=Monochoria Presl (1827) (Type, Calcarunia acuminata Raf.); New Fl. N. Am. 2:75. 1836 [1837], nom.=Pontederia dilette Puch Ham.) —Monochoria bastata (Linn.) Solms

dilatata Buch.-Ham.) = Monochoria hastata (Linn.) Solms. India.

LUNANIA Raf. Med. Fl. 2:106. 1830, descr.; Fl. Tellur. 2:11. 1836 [1837], descr.; New Fl. N. Am. 2:75. 1836 [1837], nom.=Heteranthera Ruiz & Pavon (1794).

uniflora Raf. Med. Fl. et Fl. Tellur. 1l.cc., descr. (Pontederia limosa Sw.). West Indies, Mexico=Heteranthera limosa limosa Sw.). (Sw.) Willd.

#NARUKILA Raf. Fl. Tellur. 2:10. 1836 [1837], descr., subgen. Pontederia Linn. (Type Pontederia rotundifolia Linn. f.)= Pontederia Linn.

PIAROPUS Raf. Fl. Tellur. 2:81. 1836 [1837], descr.=Eichhornia Kunth (1843) nom. conserv.

azureus Raf. op. cit. 82, descr. (Pontederia azurea Sw.). West

Indies = Eichhornia azurea (Sw.) Kunth.

crassipes Raf. ex Jacks\* Ind. Kew. 2:519. 1895 est P. crassipes Britton, Ann. N. Y. Acad. Sci. 7:241. 1893=Eichhornia crassipes (Mart.) Solms.

mesomelas Raf. op. cit. 81, descr. (Pontederia crassipes Mart.).

Brazil=Eichhornia crassipes (Mart.) Solms.

tricolor Raf. 1.c., descr. (Pontederia azurea sensu Hook. Bot. Mag. 56: t. 2932. 1829). Guiana to Ecuador=Eichhornia crassipes (Mart.) Solms.
undulatus Raf. Fl. Tellur. 4:121. 1836 [1838], descr. (Pontederia azurea sensu Lucu Hort. India). Tamaian Fich.

deria azurea sensu Lunan, Hort. Jamaic.). Jamaica=Eich-

hornia azurea (Mart.) Solms.

TRIEXASTIMA Raf. Fl. Tellur. 4:121. 1836 [1838], nom. nov. Lunania Raf. (1830), non Lunanea DC. (1825) = Heteranthera Ruiz & Pavon (1794).

UMSEMA Raf. Med. Repos. II. 5:352. 1808, nom.; Jour. Bot. (Paris) 2:170. 1809, nom.=Unisema Raf. (1815)=Pontederia Linn.

mucronata Raf. 11.cc., nom. (Pontederia cordata Linn.); A. Gray, Am. Jour. Sci. 40:228. 1841, nom.; Central Atlantic States=Pontederia cordata Linn.

obtusifolia Raf. Il.cc., nom. (Pontederia cordata Linn.); A. Gray, l.c., nom.; Central Atlantic States=Pontederia cordata Linn.

UNISEMA Raf. Anal. Nat. Tabl. Univ. 200. 1815, nom.; Am. Monthly Mag. Crit. Rev. 2:265. 1818, nom., nota (Pontederia cordata Linn.); op. cit. 4:192. 1819, nom., nota; Med. Fl. 2:105. 1830, descr.; Loud. Gard. Mag. 8:248. 1832, nom., iter. Schlecht. Linnaea 8: Lit.-Ber. 74. 1833, iter. Britten Jour. Bot. 38:229. 1900; Fl. Tellur. 1:32, 54. 1836 [1837], nom.; op. cit. 2:10. 1836 [1837], descr.; New. Fl. N. Am. 2:74. 1836 [1837], descr.; Good Book. 45. 1840, nom.= Pontederia Linn.

acutifolia Raf. Med. Fl. 2:107. 1830, descr. (Pontederia cordata sensu Lam.); New Fl. N. Am. 2:76. 1836 [1837], descr. Carolina=Pontederia lanceolata Nutt., forma brasiliensis (Solms) Fernald, Rhodora 27: 80-81. 1925.

deltifolia Raf. Med. Fl. 2:105, 107. f. 93. 1830, descr.; Fl. Tellur. 2:11. 1836 [1837], nom., nota: New Fl. N. Am. 2:75. 1836 [1837], descr. Western Kentucky. Tennessee, Alabama, and Florida=Pontederia cordata Linn.

heterophylla Raf. Med. Fl. 2:108. 1830, descr.; New Fl. N. Am. 2:76. 1836 [1837], descr. New York to Louisiana = Pontederia cordata Linn., forma

var. lanceolata Raf. ll.cc., nom. var. stenocardia Raf. ll.cc., descr.

 lancifolia Raf. Atl. Jour. 1:178. 1833, descr.; Herb. Raf. 26.
 1833, descr.; New Fl. N. Am. 2:76. 1836 [1837], descr. (†Pontederia lancifolia Muhl. Cat. 34. 1813). Florida to Texas=Pontederia cordata Linn.

latifolia Raf. Med. Fl. 2:107. 1830, descr.; New Fl. N. Am. 2:76. 1836 [1837], descr. New Jersey to Florida=Pon-

tederia cordata Linn.

var. albiflora Raf. 11.cc., nom. elatior Raf. 11.cc., nom pallida Raf. Il.cc., nom. undulata Raf. Il.cc., nom.

media Raf. Med. Fl. 2:107. 1830, descr.; New Fl. N. Am. 2:75. 1836 [1837], descr. New York to Carolina=Pontederia cordata Linn.

var. albiflora Raf. l.c., nom.; New Fl. N. Am. 2:76. 1836 [1837], descr.

angustifolia Raf. Il.cc., nom., descr.

mucronata Raf. 1.c., descr., op. cit. 77, descr. Virginia=Pontederia cordata Linn.

obliquata Raf. 1.c., descr., op. cit. 76, descr. New Jersey to Virginia=Pontederia cordata Linn.

orbiculata Raf. Med. Fl. 2:108. 1830, nom. nov. provis. Pontederia rotundifolia Linn. f. South America = Pontederia rotundifolia Linn. f.

peduncularis Raf. New Fl. N. Am. 2:75. 1836 [1837], descr. (U. purshiana Raf. ?; Pontederia angustifolia Pursh ?). Carolina to Florida=Pontederia cordata Linn.

var. parvifolia Raf. 1.c., descr.
purshiana Raf. Med. Fl. 2:107. 1830, descr. (Pontederia angustifolia Pursh); New Fl. N. Am. 2:75. 1836 [1837], nom. Southeastern United States=Pontederia cordata Linn. forma angustifolia (Pursh) House.
rotundifolia Raf. op. cit. 108. descr.; New Fl. N. Am. 2:77.

1836 [1837], descr. Kentucky, Illinois=? Pontederia cor-

data Linn.

sagitata Raf. Fl. Ludovic. 18. 1817 (Fléchiere (sagittaria) à feuilles . . . en flèches à fleurs bleues Rob. Voy. Louis. 3:340. 1807), nom. alt. Sagittaria? cerulea Raf. Louisiana =? Pontederia lanceolata Nutt.

## JUNCACEAE

#AGATHRYON Raf. Aut. Bot. 196. 1840, descr., subgen. Juncus Linn. (Type Juncus grandiflorus Linn. f.) = Marsippospermum Desv. (1808).

JUNCUS Linn.

albus Raf. Fl. Ludovic. 17. 1817, nom. (Jonc de la Rivière Vermillion à bractées blanches Rob. Voy. Louis. 3:340. 1807). Louisiana.

buffonius Raf. Aut. Bot. 196. 1840, descr., sphalm. = J. bufonius

Linn.

var. flexuosa Raf. l.c., nom. fulva Raf. 1.c., nom. gracilis Raf. 1.c., nom. maritima Raf. 1.c., nom.

\*campocarpus Raf. op. cit. 192, nom., sub Tristemon falcatum Raf., sphalm.=J. lamprocarpus Ehrh. Europe.

\*cespifolius Raf. op. cit. 196, descr. Alleghany Mountains.
\*convolutus Raf. op. cit. 195, descr. Appalachian Mountains.

\*creticus Raf. op. cit. 196, descr. Crete, Sicily. effusus Linn.

var. albescens Raf. op. cit. 194, nom.

densiflorus Raf. 1.c., nom. (sphalm. aensiflorus) fuscatus Raf. 1.c., nom.

laxiflorus Raf. I.c., nom.
paniculatus Raf. I.c., nom.
\*falcatus Raf. Atl. Jour. 1:18. 1832, nom.
\*faloridanus Raf. Aut. Bot. 194. 1840, descr.; et ex Engelm.
Trans. Acad. Sci. St. Louis 2:451. 1866. Southern Florida
= J. gerardi Loisel., 1810.
\*fuscatus Raf. Lc. descr. Kentuslay. Toppasses.

\*fuscatus Raf. l.c., descr. Kentucky, Tennessee.
\*pauperculus Raf. op. cit. 195. descr. Alleghany Mountains.
\*pumilus Raf. op. cit. 196. descr. Europe and North America. \*recurvatus Conrad ex Raf. op. cit. 194, descr. (Juncus dicho-

\*\*setavatus Conrad ex Rat. op. cit. 194, descr. (Juncus dichotomus sensu Torr.). New Jersey.

\*\*setavatis Raf. l.c., descr. Western Kentucky, Arkansas.

\*\*setaceus Raf. Med. Repos. II. 5:362. 1808, descr.; Jour. Bot. (Paris) 1:231. 1809, descr. Maryland=Juncus setaceus Rostk. Junc. 13. t. 1. f. 2. 1801.

tenuis Willd.; Raf. Aut. Bot. 194. 1840. Ohio to Florida.

var. elatior Raf. l.c., nom.

pauciflorus Raf. l.c., nom.

spicans Raf. l.c., nom.

spicans Raf. I.c., nom. \*triphylus Raf. op. cit. 195, descr. Southern New Jersey. \*virgatus Raf. 1.c., descr. Florida.

LUZULA DC.

\*acuminata Raf. Aut. Bot. 193. 1840, descr. Boreal America (L. saltuensis Fernald, 1903); see Fernald, Rhodora 46:4.

\*callosa Raf. 1.c., descr. (L. pilosa sensu bot. Sicil.). Sicily. campestris (Linn.) DC. Eurasia, North America.

var. bicolor Raf. 1.c., nom. ce[s]pitosa Raf. 1.c., nom. elatior Raf. l.c., nom. pallida Raf. l.c., nom. pumila Raf. l.c., nom.

purpurea Raf. l.c., nom. \*congesta Raf. l.c., nom. (Juncus congestus Thuill.). France. \*filamentosa Raf. Am. Jour. Sci. 1:80. 1818, nom. Pennsylvania.

\*labradorica Raf. Aut. Bot. 193. 1840, descr. Labrador= Juncus parviflora (Ehrh.) Desv.; see Fernald, Rhodora 46: 4. 1944.

\*OLISCA Raf. Aut. Bot. 192. 1840, nom. nov. provis. sub Tristemon simplex Raf. (Juncus triglumis Linn.). Europe=Juncus \*TRISTEMON Raf. Fl. Tellur. 4:32. 1836 [1838], descr., non

Raf. (1819)=Juncus Linn.

\*albus Raf. Aut. Bot. 191. 1840, descr. (Juncus acuminatus sensu Ell.). Kentucky to Carolina=Juncus acuminatus Michx.

\*biflorus Raf. op. cit. 192 (Juncus biflorus Ell.). Carolina to Florida=Juncus marginatus Rostk.

conglomeratus Raf. Fl. Tellur. 4:32. 1836 [1838], nom. (Juncus conglomeratus Linn.). Europe.

\*echinatus Raf. Aut. Bot. 190. 1840, descr. (Juncus echinatus

Ell.). New Jersey to Carolina=Juncus scirpoides Lam. var. prolifer Raf. op. cit. 191, descr.

\*falcatus Raf. op. cit. 192, descr. (Juncus "campocarpus" Raf., sphalm.=J. lamprocarpus Ehrh.). Europe. \*fulvus Raf. op. cit. 191, descr. (Juncus nodosus Linn.).

Canada to Virginia.

\*gladiatus Raf. l.c., descr. (Juncus polycephalus sensu Ell.). Carolina to Florida=Juncus polycephalus Michx.

\*glomeratus Raf. op. cit. 192, nom. (Juncus glomeratus

Thunb.). Japan. \*laxus Raf. l.c., descr. (Juncus aristulatus Michx.). Carolina to Florida=Juncus marginatus Rostk. var. aristulatus (Michx.) Coville. (J. aristulatus Michx.).

\*macrocarpus Raf. op. cit. 191, descr. (Juncus acuminatus Michx.). Canada to Alabama.

marginatus Raf. Fl. Tellur. 4:32. 1836 [1838], nom. (Juncus marginatus Rostk.); Aut. Bot. 192. 1840, nom., nota. Canada to Carolina.

odoratus Raf. Fl. Tellur. 1.c., nom. (Juncus [marginatus Rostk.] var. ? odoratus Torr., 1824). New York.

polycephalus Raf. 1.c., nom. (Juncus polycephalus Michx.). Southeastern United States.

\*repens Raf. Aut. Bot. 190. 1840, nom., nota (Juncus repens

Michx.). Carolina to Louisiana.

\*simplex Raf. op. cit. 192, nom., nota (Juncus triglumis Linn.). Alps of Europe.

\*stellatus Raf. op. cit. 191, descr. Alleghany Mountains= Juncus militaris Bigel. var. bigelowi Raf. op. cit. 192, descr. (Juncus militaris

Bigel.). New England.

paradoxus Raf. l.c., descr. Kentucky. \*striatus Raf. 1.c., descr. (Juncus fluitans Michx.). Canada to Carolina=Juncus subtilis E. Mey.

\*uliginosus Raf. op. cit. 192, descr. (Juncus uliginosus Roth). Europe=Juncus heterophyllus Dufour.

#### LILIACEAE

ABALON Adans.; Raf. Neogen. 3. 1825, nom. (Diclinotrys Raf.); Fl. Tellur. 4:27. 1836 [1838], nom., nota; New Fl. N. Am. 1:33. 1836, descr.; op. cit. 4:103. 1836 [1838], nom., nota. (Chamaelirium Willd.; Ophiostachys Delile).

†albiflorum Raf. Med. Fl. 2:182. 1830, nom., nota; Fl. Tellur. 2:30. 1836 [1837], nom. (Veratrum luteum Linn.); New Fl. N. Am. 1:33. 1836, descr. (Melanthium dioicum Walt.; Helonias lutea Ker-Gawl.; Helonias dioica Pursh). Maine to Missouri and Florida = Abalon luteum (Linn.) Fernald (Chamaelirium luteum A. Gray).

var. obovatum Raf. New Fl. N. Am. 1:34. 1836, descr.

Alabama, Florida.

pumilum Raf. 1.c., descr. Alleghany Mountains. serpentarium Raf. 1.c., descr.

spicatum Raf. 1.c., descr. Kentucky.

sylvaticum Raf. 1.c., descr. ABAMA Adans.; Raf. New Fl. N. Am. 1:34. 1836, descr. (Tofieldia Huds.); Fl. Tellur. 2:28. 1836 [1837], descr. (Tofieldia Huds.); New Fl. N. Am. 4:103. 1836 [1838], nom., nota=Narthecium Huds. (1762), nom. conserv. (Abama Adans., 1763).

glutinosa Raf. New Fl. N. Am. 1:36. 1836, descr. Lake

pubens Raf. op. cit. 35, descr. (Narthecium pubens Michx.; Anthericum calyculatum Linn., quoad syn. Gronov.; Tofieldia pubescens Pers.); Aut. Bot. 65. 1840, nom. Gronov.; Delaware to Carolina=Tofieldia racemosa (Walt.) Britton, Sterns & Poggenb. (Triantha racemosa Small).

pusilla Raf. op. cit. 36, descr. Lake Mistassin=Tofieldia

pusilla (Michx.) Pers.

scabra Raf. op. cit. 35, descr.; Fl. Tellur. 2:28. 1836 [1837]. nom. (Tofieldia pubens sensu Ell.; Melanthium racemosum Walt.); Aut. Bot. 65. 1840, nom. Carolina, Alabama Tofieldia racemosa (Walt.) Britton, Sterns & Poggenb. (Triantha racemosa Small).

AGLITHEIS Raf. Fl. Tellur. 2:17. 1836 [1837], descr., nom.

nov. Allium Linn.

carinata Raf. op. cit. 18, nom. (Allium carinatum Linn.).

\*geminata Raf. l.c., nom. [Allium geminatum Raf.]. Kentucky. \*latifolia Raf. l.c., nom. [Allium latifolium Raf.]. Rocky Mountains or Oregon.

\*melopolis Raf. Aut. Bot. 58. 1840, descr. Siberia?

\*petiolata Raf. Fl. Tellur. l.c., nom. Hab.?

\*quinquessora Raf. l.c., nom. (Allium quinquessorum Raf.);
Aut. Bot. 58. 1840, descr. Kentucky to Texas.

\*stenia Raf. Fl. Tellur. l.c., nom. (Allium stenium Raf.). Illinois.

tatarica Raf. 1.c., nom. (Allium tataricum Linn. f.). Russia, Siberia.

\*tricocum Raf. Aut. Bot. 58. 1840, descr. (Allium tricoccum Ait.). Canada, New England. \*triflora Raf. Fl. Tellur. l.c., nom. (Allium triflorum Raf.).

Pennsylvania=Allium tricoccum Ait.

\*triphyla Raf. 1.c., nom. (Allium triphylum Raf.). Rocky Mountains or Oregon.

ursina Raf. 1.c., nom. (Allium ursinum Linn.). Europe, northern Asia.

ALETRIS Linn.

\*lucida Raf. Aut. Bot. 136. 1840, descr. Wasioto Hills, Kentucky.

ALLIUM Linn.

\*cernuum Raf. Med. Repos. II. 5:353. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. (sphalm., "cermum"). Cen-Atlantic United States. An Allium cernuum Roth

\*cuneifolium Raf. Herb. Raf. 52. 1833, nom. alt. Allium triphylum Raf. Rocky Mountains or Oregon.

cupani Raf. Car. Nuov. Gen. Sp. Sicil. 86. 1810, descr. Stat. Gen. Sicil. 28. 1810, nom.; Chloris Aetn. 12. 1815, nom. Sicily.

\*geminatum Raf. Herb. Raf. 63, nom., 64, descr., 1833. Western Kentucky.

hyemale Raf. Fl. Ludovic. 19. 1817, descr. (Anonyme Rob. Voy. Louis. 3:346. 1807). Louisiana.

\*lanceolatum Raf. Herb. Raf. 52. 1833, nom. Rocky Mountains or Oregon.

\*latifolium Raf. l.c., nom. Rocky Mountains or Oregon. maritimum Raf. Car. Nuov. Gen. Sp. Sicil. 86. 1810, descr. Stat. Gen. Sicil. 28. 1810, nom.; Chloris Aetn. 7. 1815,

nom. Sicily. \*molly Raf. Fl. Tellur. 2:19. 1836 [1837], nom., sphalm.=

A. moly Linn. Europe.

quinqueflorum Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom.; Herb. Raf. 63, nom., 64, descr., 1833. Illinois.

\*stenium Raf. Herb. Raf. 63, nom., 65, descr., 1833. Illinois. triflorum Raf. Med. Repos. II. 5:362. 1808, descr.; Jour. Bot. (Paris) 1:231. 1809, descr.; Am. Monthly Mag. Crit. Rev. 2:174. 1818, nom., nota (Allium triflorum Pursh); op. cit. 265. 1818, nom. (Allium triflorum Pursh); op. cit. 4:193. 1819, nom. (Allium triflorum Pursh); Jour. Phys. Chim. Hist. Not. 80:257. 1819, nom. ata (Allium triflorum Pursh); Chim. Hist. Nat. 89:257. 1819, nom., nota (Allium triflorum Pursh). Pennsylvania=Allium tricoccum Ait.

\*triphylum Raf. Herb. Raf. 52. 1833, nom. Rocky Mountains or Oregon.

\*ALOES Raf. Aut. Bot. 136. 1840, nom., sphalm.=Aloe Linn. \*variegata Raf. 1.c., nom., nota (Aloe variegata Linn.). Africa.

Affica.

AMBLIRION Raf. Am. Monthly Mag. Crit. Rev. 2:265. 1818, nom., nota (Lilium pudicum Pursh); op cit. 4:192. 1819, nom. (Lilium pudicum Pursh); Jour. Phys. Chim. Hist. Nat. 89:102. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 240. 1820, descr.; Atl. Jour. 1:153. 1833, nom. ut subgen. Tulipa Linn.; Fl. Tellur. 2:35. 1836 [1837] descr.=Fritillegic Linn. laria Linn.

graecum Raf. Fl. Tellur. 2:5. 1836 [1837], descr. (Tulipa sibthorpiana Sibth. & Sm.). Greece=Fritillaria sibthor-

piana (Sibth. & Sm.) Baker.

pudicum Raf. Atl. Monthly Mag. Crit. Rev. 2:265, 1818, nom. (Lilium pudicum Pursh); Atl. Jour. 1:153, 1832, nom. in syn. sub Tulipa pudica Raf.; Fl. Tellur. 2:35, 1836 [1837], descr. North America=Fritillaria pudica (Pursh) preng

AMBLOSTIMA Raf. Fl. Tellur. 2:26. 1836 [1837], descr.; Aut. Bot. 64. 1840, descr.=Schoenolirion Durand (1855), nom.

albiflora Raf. Il.cc., descr. (Ornithogalum croceum Ell.).
Georgia, Florida (Oxytria albiflora Pollard; Schoenolirium elliottii Feay) = Schoenolirion albiflorum (Raf.) Gates.
crocea Raf. Fl. Tellur. 1.c., descr. (Phalangium croceum Michx.). Georgia = Schoenolirion croceum (Michx.) A.

†latifolia Raf. Aut. Bot. 64. 1840, descr. Alabama, Florida. AMIANTHUM Raf. Fl. Tellur. 4:27. 1836 [1838] = Amianthium

AMIANTHUM Raf. Fl. Tellur. 4:27. 1836 [1838] = Amianthium A. Gray (1837), nom. conserv. (Chrosperma Raf., 1825).

\*muscotoxicum Raf. 1.c., nom. Eastern North America = Amianthium muscaetoxicum (Walt.) A. Gray (Chrosperma muscaetoxicum (Walt.) O. Kuntze).

\*AMIDENA sensu Raf. Fl. Tellur. 4:15. 1836 [1838], descr., non Adans (1763) = Rohdea Roth (1821).

japonica Raf. 1.c., descr. (Orontium japonicum Thunb.). Japan = Rohdea japonica (Thunb.) Roth.

\*undulata Raf. Aut. Bot. 197. 1840, descr. Siberia.

ANEPSA Raf. Fl. Tellur. 2:31. 1836 [1837], descr.; op. cit. 4:27. 1836 [1838] nom., nota (Veratrum Linn. subgen. Stenanthium A. Gray, 1837) = Stenanthium (A. Gray) Kunth (1843), nom. conserv. (Anepsa Raf., 1837). carinata Raf. Fl. Tellur. 2:31. 1836 [1837], descr. (Veratrum angustifolium Pursh). Appalachian Mountains = Stenanthium gramineum (Ker-Gawl.) Kunth.

thium gramineum (Ker-Gawl.) Kunth.

aminifolia Raf. 1.c.. descr. Western Kentucky=Stenan-

graminifolia Raf. 1c., descr. Western Kentucky=Stenanthium gramineum (Ker-Gawl.) Kunth.

latifolia Raf. 1.c., descr. (Veratrum parviflorum Michx.). Appalachian Mountains=Melanthium parviflorum (Michx.) S. Wats.

spicata Raf. l.c., descr. Appalachian Mountains = Stenanthium

gramineum (Ker-Gawl.) Kunth.

ANIKETON Raf. Aut. Bot. 125, nom., 130, descr., 1840; Pennell, Bull. Torr. Bot. Club 48:94. 1921, nom.=Smilax

coriaceum Raf. op. cit. 130, descr.; Pennell, l.c., nom. Cuba. #ANTHOPIUM Raf. Med. Fl. 2:97. 1830, descr., subgen. Trillium Linn.; Aut. Bot. 132. 1840, nom., subgen. Trillium Linn.

#ANTHYRON Raf. Aut. Bot. 56. 1940, descr. subgen. provis. Skilla Raf. = Scilla Linn. (Type S. filiformis Raf.).
APHOMA Raf. Fl. Tellur. 2:31. 1836 [1837], descr. = Iphigenia

Kunth (1843).

angustifolium Raf. op. cit. 32, descr. India = Iphigenia indica (Linn.) Kunth.

cuneata Raf. 1.c., descr. India = Iphigenia indica (Linn.),

**ASKOLAME** Raf. Fl. Tellur. 2:11. 1836 [1837], descr. = Milla

Cav. (1793). biflora Raf. op. cit. 12, descr. (Milla biflora Cav. Ic. 2:76, t. 196. 1793). Mexico.

ATEVALA Raf. Aut. Bot. 136. 1840, descr.; Pennell, Bull. Torr.

Bot. Club 48:94. 1921, nom.=Aloe Linn. imbricata Raf. 1.c., descr.; Pennell. 1.c., nom. Africa.

\*remotiflora Raf. l.c., descr. Africa.

AXILLARIA Raf. Am. Monthly Mag. Crit. Rev. 2:266. 1818, ILLARIA Raf. Am. Monthly Mag. Crit. Rev. 2:266. 1818, nom. nov. Polygonatum Desf.; op. cit. 3:100. 1818, nom., nota (Polygonatum Desf.): op. cit. 4:189, 192, 208. 1819, nom., nota (Polygonatum Desf.); Jour. Phys. Chim. Hist. Nat. 89:102, 262, 1819, nom., nota (Polygonatum Desf.); Isis von Oken 1820, 1: Lit. Anz. 240. 1820, nom., nota (Polygonatum Desf.); Med. Fl. 2:84. 1830, nom. sub Sigillaria Raf.; Loud. Gard. Mag. 8:246. 1832, nom. (Polygonatum Desf.), iter. Schlecht. Linnaea 8: Lit.-Ber. 70. 1833, iter. Britten, Jour. Bot. 38:226. 1900; Fl. Tellur. 4:18. 1836 [1838], nom. sub Globeris Raf.; Aut. Bot. 68. 1840, nom. sub Sigillaria Raf.=Polygonatum Mill. (1754). sub Sigillaria Raf.=Polygonatum Mill. (1754). **BAIMO** Raf. Fl. Tellur. **4**:27. 1836 [1838], descr.=Fritillaria

cirrhosa Raf. 1.c., descr. (Uvularia cirrhosa Thunb.). Japan = Fritillaria verticillata Willd. var. thunbergii Baker. BLEPHANTHERA Raf. Fl. Tellur. 2:59. 1836 [1837], descr.=

Bulbine Linn.

depressa Raf. 1.c., descr. (Anthericum bulbosum R. Br.; Bulbine australis Spreng.). Australia.

hookeri Raf. 1.c., descr. (Anthericum bulbosum sensu Hook. Bot. Mag. 57: t. 3017. 1830). Australia.

BORBOYA Raf. Fl. Tellur. 3:52. 1836 [1837], descr.=Hyacinthus Linn.

spicata Raf. 1.c., descr. (Hyacinthus spicatus Sibth. & Sm.; Lindl. Bot. Reg. 22: t. 1869. 1836). Greece.

BULBEDULIS Raf. Fl. Tellur. 2:26. 1836 [1837], nom. alt. Lemotris Raf. et Quamasia Raf. = Camassia Lindl. (1832), nom. conserv. (Quamasia Raf., 1818, Cyanotris Raf., 1818). BULBINE Linn.

\*liliago Raf. Fl. Tellur. 2:28. 1836 [1837], nom. (Anthericum liliago Linn.; Phalangium liliago Schreb.). Mediterranean region=Anthericum liliago Linn.

\*CHAMALIRIUM Raf. Fl. Tellur. 4:27. 1836 [1838], nom.

sub. Abalon Adans. = Chamaelirium Willd.

CHROSPERMA Raf. Neogen. 3. 1825, descr.; Med. Fl. 2:208. 1830, nom., nota (Abalon Adans. fide Raf. 1.c.) = Amianthium

A. Gray (1848), nom. conserv. (Chrosperma Raf., 1825). laetum Raf. ex Jacks\*. Ind. Kew. 1:525. 1893 (Melanthium laetum Ait.). North America = Amianthium muscaetoxicum (Walt.) A. Gray. (Chrosperma muscaetoxicum O. Kuntze).

(Walt.) A. Gray. (Chrosperma muscaetoxicum O. Kuntze).

†CLINTONIA Raf. Fl. Ludovic. 167. 1817, nom.; Am. Monthly Mag. Crit. Rev. 2:266. 1818, descr. (Dracaena borealis Aiton; Smilacina borealis Ker-Gawl.; Convallaria umbellulata Michx.); op. cit. 4:189, 192, 208, 357. 1819, nom., nota; Jour. Phys. Chim. Hist. Nat. 89:102. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 240. 1820, descr.; Western Minerva 42. 1821, descr.; Fox, Science II. 12: 213. 1900, nom., nota,; Med. Fl. 2:84. 1830, descr.; op. cit. 211, nom.; Lond. Gard. Mag. 8:246. 1832, nom., nota, iter. Schlecht. nom., nota,; Med. Fl. 2:84. 1830, aescr.; op. ch. 211, nom., Loud. Gard. Mag. 8:246. 1832, nom., nota, iter. Schlecht. Linnaea 8: Lit.-Ber. 69. 1833, iter. Britten Jour. Bot. 38: 226. 1900; Herb. Raf. 19. 1833, nom.; Fl. Tellur. 4:17. 1836 [1838], nom., nota; New Fl. N. Am. 1:6. 1836; op. cit. 2:27. 1836 [1837], nom., nota; Life of Travels 60. 1836, nom.

aitoni Raf. Atl. Jour. 1:120. 1832, nom. alt. Clintonia borealis Raf. Canada = C. borealis (Ait.) Raf.

angustifolia Raf. New Fl. N. Am. 2:79. 1836 [1837], descr.: Aut. Bot. 58. 1840, nom. Alleghany Mountains=C. borealis (Ait.) Raf.

biflora Raf. op. cit. 78, descr.; Aut. Bot. 58. 1840, nom., nota. Southern Appalachian or Alleghany Mountains = C. borealis (Ait.) Raf.

var. humilis Raf. New Fl. op. cit. 79. descr.

biumbella Raf. op. cit. 81, descr. Alleghany Mountains = C. borealis (Ait.) Raf.

var. aitoni Raf. 1.c., descr. (Clintonia aitoni Raf.; Dra-caena borealis Ait.; Andr. Bot. Repos. 3: t. 206. 1802). Canada = C. borealis (Ait.) Raf.

borealis Raf. Atl. Jour. 1:120. 1832, descr. (Clintonia aitoni Raf. [Dracaena borealis Ait.]). North America=Clintonia

borealis (Ait.) Raf.

ciliata Raf. Am. Monthly Mag. Crit. Rev. 4:357. 1819, descr.; Jour. Phys. Chim. Hist. Nat. 89:102. 1819, descr. (Dracaena borealis Ait.; Convallaria umbellulata Michx.); Isis von Oken 1820, 1: Lit. Anz. 240. 1820, descr. (Dracaena borealis Aiton; Convallaria umbellulata Michx.). North America=Clintonia umbellulata (Michx.) Morong.

decantha Raf. Atl. Jour. 1:120. 1832, descr. Alleghany Mountains of Virginia and Cumberland Mountains of Kentucky =

C. umbellulata (Michx.) Morong.

falcata Raf. New Fl. N. Am. 2:79. 1836 [1837], descr. Oquago Mountains, New York=C. borealis (Ait.) Raf. var. tridens Raf. 1.c., descr.

fulva Raf. op. cit. 82, descr. [Eastern United States] = C. borealis (Ait.) Raf.

glomerata Raf. op. cit. 83, descr. Ap Mountains = C. borealis (Ait.) Raf. Appalachian and Wasioto

latifolia Raf. op. cit. 81, descr. Taconic Mountains and New England=C. borealis (Ait.) Raf.

†multiflora Raf. Med. Fl. 2:85. 1830, nom.; Atl. Jour. 1:120. 1832. descr.: Loud. Gard. Mag. 8:246. 1832, nom., iter. 1832, descr.; Loud. Gard. Mag. 8:246. 1832, nom., iter. Schlecht. Linnaea 8: Lit.-Ber. 69. 1833, iter. Britten, Jour. nom., iter. Bot. 38:226. 1900. Canada; cultivated in England=C. borealis (Ait.). Raf.

mutans Raf. Ann. Nat. Ann. Synop. 16. 1820, nom. sub Clintonia podanisia Raf. (Dracaena borealis Aiton). North

America = C. borealis (Ait.) Raf.

\*natans Raf. ex Schlecht. Linnaea 8: Lit.-Ber. 69. 1833. nom., sphalm. = seq.

† CLINTONIA (continued). nutans Raf. Med. Fl. 2:85. 1830, nom.; Western Minerva 43. 1832, descr., iter. Fox, Science II. 12:213. 1900; Loud. Gard. Mag. 8:246. 1832, nom., iter. Britten Jour. Bot. 38:226. 1900; Atl. Jour. 1:120. 1832, nom.; New Fl. N. Am. 2:80. 1836 [1837], descr.; Aut. Bot. 58. 1840, nom. Canada, New York, Pennsylvania=C. borealis (Ait.) Raf.

var. bifolia Raf. New Fl. N. Am. 2:80. 1836 [1837],
descr. Pocono Mountains, Pennsylvania.
dasistema Raf. Western Minerva 43. 1832, descr.,

iter. Fox, Science II. 12:213. 1899.

fascicularis Raf. l.c., descr., Fox. l.c., descr. flexipes Raf. New Fl. N. Am. 2:80. 1836 [1837],

descr. Alleghany Mountains. macrostema Raf. Western Minerya 43. 1832, descr., iter. Fox, Science II. 12:213. 1900.

obovata Raf. 11.cc., descr. prolifera Raf. 11.cc., descr. uniflora Raf. Il.cc., descr.

odorata Raf. Ann. Nat. Ann. Synop. 16. 1820, nom., sub Clintonia podanisia Raf. (Convallaria umbellulata Michx.); Western Minerva 43. 1821, descr. (err. Cintonia), iter. Fox, Science II. 12:213. 1900; Med. Fl. 2:85. 1830, nom.; Atl. Jour. 1:120. 1832, nom.; New Fl. N. Am. 2:82. 1836 [1837], descr.; Aut. Bot. 58. 1840, nom. (Convallaria umbellulata Michx.). North America=C. umbellulata (Michx.)

var. decantha Raf. New Fl. N. Am. 2:82. 1836 [1837], descr. (Clintonia decantha Raf. fide Raf.). Virginia.

multiflora Raf. 1.c., descr. (Clintonia multiflora Raf., fide Raf.). Canada.

punctata Raf. Western Minerva 43. 1821, descr., iter. Fox, Science II. 12:214. 1900. Alleghany Mountains.

ophioglossoides Raf. New Fl. N. Am. 2:80. 1836 [1837], descr. Michigan=C. borealis (Ait.) Raf.

parviflora Raf. Ann. Nat. Ann. Synop. 16. 1820, descr.; Western Minerva 43. 1821, descr., iter. Fox, Science II. 12:213. 1900; Med. Fl. 2:85. 1830, nom.; Atl. Jour. 1:120. 1832, nom.; Life of Travels 60. 1836, nom.; New Fl. N. Am. 2:81. 1836 [1837], descr.; Aut. Bot. 58. 1840, nom. Alleghany Mountains of Maryland=C. umbellulata (Michx.) Morong.

var. abortiva Raf. Western Minerva 43. 1821, descr., iter. Fox, Science II. 12:213. 1900.

plicata Raf. 11.cc., descr.

podanisia Raf. Ann. Nat. Ann. Synop. 16. 1820, descr.; Western Minerva 43. 1821, descr., iter. Fox, Science II. 12:213. 1900; Med. Fl. 2:85. 1930, nom.; Alt. Jour. 1:120. 1832, nom.; New Fl. N. Am. 2:80. 1836 [1837], descr. Pennsylvania=C. umbellulata (Michx.) Raf.

var. biflora Raf. Western Minerva 43. 1821, descr., iter. Fox, Science II. 12:213. 1900.

fascicularis Raf. 11.cc., descr. glabrata Raf. 11.cc., descr.

phyllostema Raf. Il.cc., descr. triflora Raf. New Fl. N. Am. 2:79. 1836 [1837], descr. Alleghany Mountains = C. borealis (Ait.) Raf. var. tridens Raf. I.c., descr.

undulata Raf. op. cit. 81, nom. alt. Clintonia aitoni Raf.

Eastern North America = C. borealis (Ait.) Raf.

CODOMALE Raf. Aut. Bot. 67. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:93. 1921, nom.=Polygonatum Mill. (1754).

purpurascens Raf. 1.c., descr. (Convallaria grandiflora hort.);
Pennell, 1.c., nom. Siberia=Polygonatum sp.

COILONOX Raf. Fl. Tellur. 2:28. 1836 [1837], descr.=Ornithogalum Linn.

albucoides Raf. l.c., nom. (Phalangium albucoides Poir.). South Africa=Ornithogalum suaveolens Jacq.

COLCHICUM Linn. \*medium Raf. Chloris Aetn. 12. 1815, nom. Sicily.

CONRADIA Raf. Neogen. 3. 1825, descr.; New Fl. N. Am. 1: 34. 1836, nom. sub Abama Adans., non Conradia Nutt. (1834) = Tofieldia Huds. (1778).

CONVALLARIA Linn. \*grandiflora Hort. ex Raf. Aut. Bot. 67. 1840, nom. sub Codomale Raf. = Codomale purpurascens Raf. = Polygonatum sp. Siberia.

\*montana Raf. Aut. Bot. 66. 1840, descr., nom. nov. Convallaria \*pseudo-majalis Bartr. in Rees Cycl. Am. ed. 10: no. 12, 1812-24, nom., nota. Unaka and Cheroki Mountains, North Carolina (C. majuscula Greene; C. globosa Greene); see Fernald, Rhodora 46:12-14. 1944. \*parviflora Raf. Herb. Raf. 66. 1833, nom.; Aut. Bot. 66.

\*umbellata Raf. Jour. Phys. Chim. Hist. Nat. 89:102. 1819, nom., sphalm.; Isis von Oken 1820, 1: Lit. Anz. 240. 1820, nom., sphalm. Eastern North America = C. umbellulata Michx.=Clintonia umbellulata (Michx.) Morong.

CRONYXIUM Raf. Fl. Tellur. 2:28. 1836 [1837], descr.= Lloydia Salisb. (1812), non Neck. (1790), nom. conserv. (Rhabdocrinum Richb., 1828; Nectarobothrium Ledeb., 1830).

serotinum Raf. l.c., nom. (Anthericum serotinum Linn.; Phalangium serotinum Poir.). Europe=Lloydia serotina (Linn.) Sweet.

CROSPERMA Raf. Fl. Tellur. 2:32. 1836 [1837], descr.; op. cit. 4:27. 1836 [1838], nom., nota.=Amianthium A. Gray (1848), nom. conserv. (Chrosperma Raf., 1825).

angustifolia Raf. op. cit. 2:33. nom.

†laeta Raf. Fl. Tellur. 2:33. 1836 [1837], nom., sphalm. "loeta (Melanthium laetum Ait.; M. [Helionas] erythro-spermum Raf.) op. cit. 4:27. 1836 [1838], nom. Eastern spermum Raf.) op. cit. 4:27. 1836 [1838], nom. North America=Amianthium muscaetoxicum (Walt.) A. Gray (Chrosperma muscaetoxicum O. Kuntze.)

1836 [1837], nom. phalangioides Raf. Fl. Tellur. 2:33. (Melanthium phalangioides Willd.; Anthericum subtrigynum Jacq.). Eastern North America = Amianthium muscaetoxicum (Walt.) A. Gray (Chrosperma muscaetoxicum O.

Kuntze).

#CUSCUMIA Raf. New Fl. N. Am. 2:78. 1836 [1837], descr., subgen. Clintonia Raf.; Fl. Tellur. 4:17. 1836 [1838], nom.

=Člintonia Raf. (1818).

†CYANOTRIS Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818, descr.; op. cit. 4:192, nom., nota, 208, nom., 1819; Jour. Phys. Chim. Hist. Nat. 89:262. 1819, nom., nota (Helonias angustifolia Michx.)=Camassia Lindl. (1832), nom. conserv. (Quamasia Raf., 1818, Cyanotris Raf., 1818).

angustifolia Raf. ex Jacks\*. Ind. Kew. 1:676. 1893 (Helonias angustifolia Michx.). Southeastern United States=Amianthium angustifolium (Michx.) A. Gray (Tracyanthus angus-

tifolius Small). \*pratensis Raf. Western Minerva 58. 1821, nom., nota (Helonias angustifolia Michx.), iter. Fox, Science II. 12: 214. 1900=praec.

†scilloides Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818, descr. Alleghany Mountains or Ohio=Camassia scilloides (Raf.) Cory, Rhodora 38:405. 1936.

DAISWA Raf. Fl. Tellur. 4:18. 1836 [1838], descr. = Paris Linn. polyphyla Raf. 1.c., descr. (Paris polyphylla Sm.). Nepal.

DELOSTYLIS Raf. Am. Monthly Mag. Crit. Rev. 4:192. 1819, nom., subgen. Trillium (T. stylosum Nutt.); Aut. Bot. 132. 1840, nom., subgen. Trillium; Jour. Phys. Chim. Hist. Nat. 89:102. 1819, ut gen., descr.; Isis von Oken 1820, 1: Lit. Anz. 240. 1820, descr. = Trillium Linn.

cernuum Raf. Jour. Phys. Chim. Hist. Nat. l.c., nom.; Isis von Oken l.c., nom. (Trillium stylosum Nutt.). North America = Trillium catesbaei Ell., 1817.

stylosum Raf. ex Jacks\*. Ind. Kew. 1:725. 1893 (Trillium stylosum Nutt.). North America=praec.

#DELOSTYLIUM Raf. Med. Fl. 2:97, 102, 1830, descr., subgen. Trillium Linn.=Trillium Linn.

#DESMIPUS Raf. New Fl. N. Am. 1:36. 1836, nom. subg. Abama Adans., 1763 (A. pusilla Raf.)=Tofieldia Huds. (1778).

\*DICLINOTRIS Raf. New Fl. N. Am. 1:33. 1836, nom.=seq. DICLINOTRYS Raf. Neogen, 3. 1825, descr. (Abalon Adans.); New Fl. N. Am. 1:33. 1836, nom. in syn. sub Abalon Adans.; Fl. Tellur. 4:27. 1836 [1838], nom. = Chamaelirium Willd. (1808).

albiflorum Raf. Neogen. 1.c., nom. (Veratrum luteum Linn.). North America = Chamaelirium luteum (Linn.) A. Gray. DILAX Raf. Aut. Bot. 125, nom., 131, descr., 1840; Pennell, Bull.

Torr. Bot. Club 48:94. 1921, nom. = Smilax Linn. muricata Raf. l.c. 131, descr. (Smilax tamnifolia Michx.); Pennell, l.c., nom. Florida=Smilax tamnoides Linn. \*DRACENA Raf. Fl. Tellur. 1:73. 1836 [1837], nom.; op. cit.

4:16. 1836 [1838], nom.=Dracaena Linn.

DRAKAINA Raf. Fl. Tellur. 4:16. 1836 [1838], nom. nov. Dracaena Linn. (sub. Euphyleia Raf.) = Dracaena Linn. draco Raf. op. cit. 17, nom. (Dracaena draco Linn.). Canary

Islands.

marginata Raf. 1.c., nom., nota (Dracaena marginata Ait., Phylloma albiflorum Ker-Gawl. Bot. Mag. 38: t. 1585. 1813). Mascarene Islands=Lomatophyllum purpureum (Lam.) Durand & Schinz.

ELIOKARMOS Raf. Fl. Tellur. 2:24. 1836 [1837], descr.; op. cit. 3:58. 1836 [1837], descr. = Ornithogalum Linn.

aureus Raf. 1.c., nom.; op. cit. 59, descr. (Ornithogalum aureum Curtis). South Africa=Ornithogalum thyrsoides Jacq. var. aureum (Curtis) Baker.

caudatus Raf. Fl. Tellur. 2:24. 1836 [1837], nom. (Ornithogalum caudatum Ait.). South Africa.

coarctatus Raf. 1.c., nom. (Ornithogalum coarctatum Jacq.).

South Africa.

maculatus Raf. Fl. Tellur. 3:59, descr. (Ornithogalum arabicum DC. in Redouté Lil. 2: t. 63. 1804, non Linn.; O. thyrsoides Jacq., var. album Ker-Gawl. Bot. Reg. 4: t. 316. 1818). South Africa = Ornithogalum thyrsoides Jacq.

thyrsoides Raf. Fl. Tellur. 2:24. 1836 [1837], non.; op. cit. 3:58. 1836 [1837], descr. (Ornithogalum thyrsoides Jacq.; Sims, Bot. Mag. 29: t. 1164. 1809; Ker-Gawl. Bot. Reg. 4: t. 305. 1818; DC. in Redouté Lil. 6: t. 333. 1811). South

**ENDOCOMA** Raf. Fl. Tellur. 2:58. 1836 [1837], descr.=Bot-

tionea Colla (1834).

parviflora Raf. 1.c., descr. (Anthericum plumosum sensu Hook. Bot. Mag. 58: t. 3084. 1831). Chile=Bottionea thysanthoides Colla.

peruviana Raf. 1.c., descr. (Anthericum plumosum Ruiz & Pav. Fl. Peruv. 3:68. t. 300. 1802). Peru=Bottionea thy-

santhoides Colla.

ENDOGONA Raf. Fl. Tellur. 2:27. 1836 [1837], descr., nom.

nov. Phalangium Adans.=Anthericum Linn.
adenanthera Raf. l.c., nom. (Anthericum adenanthera Forst.

f.). New Caledonia = Dianella nemorosa Lam.
ramosa Raf. l.c., nom.; Aut. Bot. 57. 1840, nom. (Anthericum ramosum Linn.; Phalangium ramosum Houtt.). Sicily, Greece=Anthericum ramosum Linn.

**ENDOTIS** Raf. Fl. Tellur. 2:21. 1836 [1837], dcscr.=Allium Linn.

pyrenaica Raf. 1.c., descr. (Allium appendiculatum Ram. ex Pers.). Southern Europe.

\*ENNEARINA Raf. Aut. Bot. 65. 1840, nom. nov. Pleea Michx. (1803).

\*pleiana Raf. 1.c., nom., nota (Pleea tenuifolia Michx.). Carolina=Pleea tenuifolia Michx.

**EPIMENIDION** Raf. Fl. Tellur. 2:13. 1836 [1837], descr. = Scilla Linn.

hyacinthoides Raf. l.c., nom. (Scilla hyacinthoides Jacq.; S. campanulata Ait.). Spain=Scilla hispanica Mill.

undulatum Raf. op. cit. 14., nom. (Scilla undulata Desf.).
Mediterranean region=Urginea undulata (Desf.) Steinh.

EPIONIX Raf. Fl. Tellur. 2:31. 1836 [1837], descr. = Baeometra Salisb. (1812).

flava Raf. I.c., descr. (Melanthium flavum Sm.). South Africa Baeometra breyniana (Linn.) Baill. (B. columnaris Salisb.)

rubra Raf. 1.c., descr. [Melanthium uniflorum Jacq.]. South Africa=Baeometra breyniana (Linn.) Baill. (B. columnaris Salisb.).

ERYTHRONIUM Linn.

albidum Nutt. New York to Kentucky and Missouri. var. angustifolium Raf. Med. Fl. 1:173. 1838, iter. Man. Med. Bot. 173. 1841, nom.

bracteatum Raf. 11.cc., nom. candidum Raf. 11.cc., nom. cerulescens Raf. Il.cc., nom. clandestinum Raf. 11.cc., nom. glaucum Raf. Il.cc., nom. grandiflorum Raf. Il.cc., nom. maculatum Raf. Il.cc., nom. parviflorum Raf. Il.cc., nom.

angustatum Raf. Med. Repos. II. 5:354. 1808, nom. nov. Erythronium dens-canis sensu Michx.; iter. Jour. Bot. (Paris) 2:174. 1809, nom. Eastern North America=E. americanum Ker-Gawl.

\*anisophylum Raf. Herb. Raf. 66. 1833, nom. Appalachian Mountains.

flavum Smith; Raf. Med. Fl. 1:168. t. 35. 1828, iter. Man. Med. Bot. 168. t. 35. 1841. Eastern North America=E. americanum Ker-Gawl.

var. bracteatum Raf. op. cit. 170, descr.

croceum Raf. I.c., descr glaucum Raf. op. cit. 171, descr. grandiflorum Raf. 1.c., descr. latifolium Raf. 1.c., descr. lucidum Raf. 1.c., descr. parviflorum Raf. 1.c., descr.

viperinum Raf. op. cit. 170, descr. \*luteum Raf. Western Minerva 1:58. 1821, nom., nota. Kentucky.

\*parvifolium Raf. Herb. Raf. 66. 1833, descr. Appalachian Mountains.

\*petiolatum Raf. 1.c., nom. Appalachian Mountains.
ETHESIA Raf. Fl. Tellur. 3:60. 1836 [1837], descr.=Ornithogalum Linn.

prasina Raf. l.c., descr. (Ornithogalum prasinum Ker-Gawl. Bot. Reg. 2: t. 158. 1816). South Africa. \*EUBOTRYS Raf. Fl. Tellur. 3:5. 1836 [1837], nom. nov. Muscari Mill., non Eubotrys Nutt. (1843) = Muscari Mill. (1752).

\*arvensis Raf. Aut. Bot. 124. 1840, nom. (Hyacinthus botryoides Linn.). Europe; Pennsylvania=Muscari botry-

oides (Linn.) Mill. \*comosa Raf. 1.c., nom. (Hyacinthus comosus Linn.). Sicily

=Muscari comosum (Linn.) Mill. \*odorata Raf. 1.c., nom., nota (Hyacinthus racemosus Linn.).

Europe=Muscari racemosum (Linn.) Mill. **EUDESMIS** Raf. Fl. Tellur. 3:80. 1836 [1837], descr.=Col-

chicum Linn. fascicularis Raf. 1.c., descr. (Hypoxis fascicularis Linn.;

Allium sylvestre sive moly minus albo amplo Russell, Nat. Hist. Aleppo t. 2. 1756; Hypoxis fascicularis Linn.; Soland. ex Russell op. cit. ed. 2, 2:250. t. 9. 1794). Syria. EUPHYLEIA Raf. Fl. Tellur. 4:16. 1836 [1838], descr. = Cordyline Adams. (1763).

odorata Raf. op. cit. 17, descr. (Dracaena australis Forst. f.; Hook. Bot. Mag. 55: t. 2835. 1828; D. obtecta Grah.). New Zealand=Cordyline australis (Forst. f.) Hook.

\*EUPHYLIEU Raf. Fl. Tellur. 4:17. 1836 [1838], nom., sphalm.

EVONŶXIS Raf. Fl. Tellur. 2:29. 1836 [1837], descr.; op. cit. 4:27. 1836 [1838], nom., nota (Leimanthium Willd.)= Melanthium Linn.

glauca Raf. Fl. Tellur. 2:29. 1836 [1837], nom. (Melanthium glaucum Nutt.). North America = Zygadenus glaucus Nutt. hybrida Raf. l.c., nom. (Melanthium hybridum Wait.). Southeastern United States=Melanthium virginicum Linn.

monoica Raf. l.c., nom. (Melanthium monoicum Pursh). Eastern North America = Melanthium virginicum Linn. undulata Raf. l.c., descr. Alabama.

virginica Raf. 1.c., nom. (Melanthium virginicum Linn.).

Eastern North America.

FENELONIA Raf. Atl. Jour. 1:145. 1832, descr.; Fl. Tellur. 1:16. 1836 [1837], nom.; op. cit. 2:23. 1836 [1837], descr.= Lloydia Salisb. (1812).

bracteata Raf. Il.cc., nom. (Ornithogalum bracteatum Torr.). Rocky Mountains=Lloydia serotina (Linn.) Sweet.

FLUEGGEA L. C. Richard (1807), non Fluggea Willd. (1806) Ophiopogon Ker-Gawl. (1807), nom. conserv. (Mondo Adans., 1763).

anceps Raf. ex Jacks\*. Ind. Kew. 1:971. 1893 (Convallaria japonica Linn. f.) = Ophiopogon japonicum (Linn. f.) Ker-Gawl.

angulata Raf. ex Jacks\*. l.c. (Convallaria japonica Linn. f.)

=Ophiopogon japonicum (Linn. f.) Ker-Gawl.

FLUGEA Raf. Fl. Tellur. 4:17. 1836 [1838], descr.=Ophiopogon Ker-Gawl. (1807), nom. conserv. (Mondo Adans., 1763).

\*anceps Raf. op. cit. 18, descr. (Convallaria japonica Linn. f.). Japan=Ophiopogon japonicum (Linn. f.) Ker-Gawl.

\*angulata Raf. 1.c., descr. (Convallaria japonica Linn. f.).
Japan=Ophiopogon japonicum (Linn. f.) Ker-Gawl. FRITILLARIA Linn.

†messanense Raf. Précis Découv. Somiol. 44. 1814, descr.;
Jour. Bot. (Desv.) 4:272. 1814, descr. Sicily.

FUNKIA Spreng. (1817)=Hosta Trattn. (1812), nom. conserv.
(Saussurea Salisb., 1807).

\*angustifolia Raf. Aut. Bot. 63. 1840, nom. (Hemerocallis caerulea Ait.). Japan=Hosta caerulea (Andr.) Trattn.

FUNKIA (continued).

\*cordata Raf. 1.c., nom. (Hemerocallis caerulea Andr.). Japan

=Hosta caerulea (Andr.) Trattn.
FUSIFILUM Raf. Fl. Tellur. 2:27. 1836 [1837], descr.= Urginea Steinh. (1834).

coarctatum Raf. ex Jacks\*. Ind. Kew. 1:984. 1893 (Anthericum coarctatum Ruiz & Pav.; Phalangium coarctatum Pers.). South America=Excremis ramosa Willd. physodes Raf. ex Jacks\*. I.c. (Anthericum physodes Jacq.; Phalangium physodes Raf.). South Africa=Urginea physodes (Jack) Peters.

sodes (Jacq.) Baker.

pusillum Raf. ex Jacks\*. l.c. (Anthericum pusillum Jacq.; Phalangium pusillum Raf.). South Africa=Urginea pusilla (Jacq.) Baker.

(Jacq.) Baker.

GEBOSCON Raf. First Cat. Bot. Gard. Transylv. Univ. 14.
1824, nom.; Herb. Raf. 65. 1833, descr., ut subgen. Allium;
Fl. Tellur. 2:19. 1836 [1837], descr.; Aut. Bot. 59. 1840,
nom., nota=Nothoscordum Kunth (1843), nom. conserv.
(Geboscon Raf., 1824, 1837; Pseudoscordum Herb., 1837).
\*acetabulum Raf. Aut. Bot. 61. 1840, descr. Arkansas, Texas.

\*anisanthum Raf. l.c., descr. Florida.

\*carneum Raf. I.c., descr. Rocky Mountains. \*geminatum Raf. Herb. Raf. 64. 1833, descr. (Allium striatum sensu auct. Am.); Aut. Bot. 60. 1840, descr. Western Kentucky=Nothoscordum bivalve (Linn.) Britton.
\*lanceolatum Raf. Aut. Bot. 59. 1840, descr. (Allium vic-

torialis Linn.; A. ursinum Linn.). Europe, Siberia=Allium victoralis Linn.

\*latifolium Raf. l.c., descr. "Origon or East Siberia." \*obliquum Raf. Fl. Tellur. 2:19. 1836 [1837], nom. (Allium obliquum Linn.). Siberia.

\*petiolare Raf. Aut. Bot. 59. 1840, nom. alt. Geboscon ursinum Raf. Alps of Europe=Allium ursinum Linn.

\*proliferum Raf. op. cit. 60. 1840, descr. Missouri.

\*rubrum Raf. op. cit. 61, descr. (Allium rubrum Raf. 1.c., nom.) Siberia. An Allium rubellum Bieb.?

\*stenium Raf. op. cit. 60, descr. [Allium stenium Raf. Herb. Raf. 65. 1833]. Illinois.

striatum Raf. First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom. Kentucky.

\*sulcatum Raf. Aut. Bot. 61. 1840, descr. Florida.

\*tenellum Raf. op. cit. 60, descr. Florida.

\*triphylum Raf. op. cit. 59, descr. (Allium victorialis Linn.). Siberia or Oregon.

\*ursinum Raf. 1.c., descr. (Allium ursinum Linn.). Alps of Europe.

GENLISA Raf. Aut. Bot. 57. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:93, 1921, nom., non Genlisia Reichb. (1828), nec Genlisea A. St. Hil. (1833) = Scilla Linn.

\*autumnalis Raf. 1.c., descr. (Scilla autumnalis Linn.). Eu-

bifolia Raf. 1.c., descr.; Pennell, 1.c., nom. (Scilla bifolia Linn.). Europe, Asia Minor. GETUONIS Raf. Fl. Tellur. 2:20. 1836 [1837], descr.=Allium

Linn.

vinealis Raf. ex Jacks\*. Ind. Kew. 1:1025. 1893 (Allium vineale Linn.). Europe.

GLOBERIA Raf. Med. Fl. 2:84. 1830, descr. (Type Convallaria

spicata Thunb.) = Liriope Lour. (1790).
autumnalis Raf. ex Jacks\*. Ind. Kew. 1:1034. 1893. Japan=

Liriope graminifolia (Linn.) Baker.

spicata Raf. ex Jacks\*. 1.c. (Convallaria spicata Thunb.).

Japan=Liriope graminifolia (Linn.) Baker.

GLOBERIS Raf. Fl. Tellur. 4:18. 1836 [1837], descr.=Liriope Lour. (1790).

\*autumnalis Raf. 1.c., descr. (Convallaria spicata Thunb.).

Japan=Liriope graminifolia (Linn.) Baker.

GOMPHOSTYLIS Raf. Fl. Tellur. 2:30. 1836 [1837], descr.,

non Wall. (1830) = Zigadenus Michx. (1803) (Zygadenus auct.).

bracteata Raf. 1.c., descr. (Helonias bracteata Sims, Bot. Mag. 41: t. 1703. 1815). Virginia=Zigadenus bracteatus (Sims) Sweet.

fuscata Raf. 1.c., descr. nom. alt. Zigadinus fuscatus Raf. Eastern United States.

paniculata Raf. 1.c., descr. (Melanthium virginicum Linn.; Veratrum virginicum Ait.; Helonias virginica Ker-Gawl. Bot. Mag. 25: t. 985. 1827). Eastern United States= Melanthium virginicum Linn.

#GURENIAS Raf. Fl. Tellur. 4:26. 1836 [1838], descr. subgen. Ruscus Linn. (Type Ruscus androgynus Linn.)=Semele Kunth (1824).

GYNODON Raf. Fl. Tellur. 2:18. 1836 [1837], descr.=Allium

cernuum Raf. 1.c., descr. (Allium cernuum Roth). "Mts. Caucasus" [North America].

\*elioti Raf. Aut. Bot. 62. 1840, nom.=Allium ellioti Raf.= Allium cernuum Roth.

ellioti Raf. 1.c., descr. (Allium cernuum sensu Ell.). Alleghany and Appalachian Mountains=Allium cernuum Roth.

†rupestre Raf. First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom.; Herb. Raf. 63. 1833, nom. (Allium nutans auct.); Fl. Tellur. 2:18. 1836 [1837], descr.; Aut. Bot. 62. 1840, nom., nota (Allium cernuum auct. Am.). Kentucky and western Alleghany Mountains=Allium cernuum Roth. GYROMIA Nutt. = Medeola Linn.

\*acuminata Raf. Herb. Raf. 66. 1833, nom.; Aut. Bot. 125. 1840, descr. (Medeola virginica Linn.). Canada to Louisiana. var. angustata Raf. Aut. Bot. 1.c., nom.

pentaphyla Raf. l.c., nom.

picta Raf. 1.c., nom. \*cuneata Raf. Aut. Bot. 125. 1840, descr. Alleghany Mountains.

\*cuneifolia Raf. Herb. Raf. 66. 1833, nom. Appalachian Moun-

\*picta Raf. Herb. Raf. 67. 1833, nom. Cumberland Mountains. \*uniflora Raf. op. cit. 63, nom. (Medeola uniflora Raf.). Kentucky or Illinois.

HELONIAS Linn.

striata Raf. Atl. Jour. 1:147. 1832, descr. Florida.

HEMEROCALLIS Linn.

\*cerulea Raf. First Cat. Bot. Gard. Transylv. Univ. 21. 1824, nom.=Hemerocallis caerulea Andr.=Hosta caerulea Tratt. Eastern Asia.

HEMIERIUM Raf. Fl. Tellur. 2:27. 1836 [1837], desr.=Lloydia Salisb. (1812).

greeum Raf. I.c., nom. (Anthericum graecum Linn.). Greece, Asia Minor=Lloydia graeca (Linn.) Endl.

planifolium Raf. 1.c., nom. (Anthericum planifolium Linn.). Europe=Simethis planifolia (Linn.) Gren. & Godr.

HEROION Raf. Fl. Tellur. 4:12. 1836 [1838], descr.=Asphodeline Reichb. (1830).

filiformis Raf. 1.c., descr. (Asphodelus tenuior Fisch.; Sims Bot. Mag. 53: t. 2626. 1826). Caucasus Mountains=Asphodeline tenuior (Fisch.) Ledeb.

\*HEXONIX Raf. Fl. Tellur. 2:13. 1836 [1837], descr.=Heloniopsis A. Gray (1859).

\*japonica Raf. l.c., descr. (Scilla japonica Thunb.). Japan= Heloniopsis japonica (Thunb.) Maxim.

†HEXORIMA Raf. Med. Repos. II. 3:422. 1806, nom.; op. cit. 11. 5:351. 1808, nom., nota; Jour. Bot. (Paris) 2:168. 1809, nom., nota; Specch. Sci. 1:193. 1814, descr.; Am. Monthly Mag. Crit. Rev. 2:265. 1818, nom., nota.; Jour. Phys. Chim. Hist. Nat. 89:262. 1819, nom., nota=Streptopus Michx. (1803).

†dichotoma Raf. Med. Repos. 11.cc., nom.; Jour. Bot. (Paris) 1.c., nom.; Specch. Sci. î.c., descr.; A. Gray, Am. Jour. Sci. 40:227. 1841, nom.; Pennsylvania=Streptopus roseus Michx.

HYACINTHUS Linn.

†belgicus Bory ex Raf. Aut. Bot. 124. 1840 nom. sub Lagocodes belgica Raf.; hort. ex Steud. Nomencl. ed. 2, 1:779. 1840=Scilla festalis Salisb.

\*botrys Raf. 1.c., nom. sub Eubotrys Raf.=H. botryoides Linn.=Muscari botryoides (Linn.) Mill. Southern Europe, Asia Minor.

IFUON Raf. Fl. Tellur. 4:12. 1836 [1838], descr. = Asphodeline Reichb. (1830).

nutans Raf. 1.c., descr. (Asphodelus liburnicus Scop. Fl. Carnol. ed. 2, 1:245. t. 12. 1772). Istria=Asphodeline liburnica (Scop.) Reichb.

IONCOMELOS Raf. ex Jacks\*. Ind. Kew. 1:1221. 1893, sphalm. =Loncomelos Raf. (1837)=Scilla Linn.

purpureus Raf. ex Jacks\*. l.c., sphalm.=Loncomelos purpureus Raf. Sicily=Scilla cupani Guss.

IPHEION Raf. Fl. Tellur. 2:12. 1836 [1837], descr. (Beauverdia Herter, 1941); see Stearn, Gard. Chron. III. 114:60. 1943.

uniflorum Raf. 1.c., descr. (Milla uniflora Grah.; Hook. Bot. Mag. 61: t. 3327. 1834); Stearn 1.c. Argentina. (Triteleia uniflora Lindl.; Brodiaea uniflora Engl.; Leucocoryne uniflora Greene; Hookera uniflora O. Kuntze; Beauverdia uniflora Herter).

\*IRILLIUM Raf. Ann. Gén. Sci. Phys. 7:19. 1820, nom., sphalm.

=Trillium Linn.
\*petiolatum Raf. 1.c., nom., sphalm.=Trillium petiolatum
Pursh. Eastern North America.

\*sessile Raf. 1.c., nom., sphalm.=Trillium sessile Linn. Eastern North America. \*tinctorium Raf. 1.c., nom., sphalm.=Trillium tinctorium Raf.

Central United States.

JRILLIUM Raf. Jour. Phys. Chim. Hist. Nat. 91:72. 1820, nom., nota, sphalm.=Trillium Linn.

\*petiolatum Raf. I.c., nom. Eastern North America=Trillium petiolatum Pursh.

sessile Raf. 1.c., nom. Eastern North America=Trillium sessile Linn.

\*tinctorium Raf. 1.c., nom. Eastern North America=Trillium tinctorium Raf.

**KALABOTIS** Raf. Fl. Tellur. 2:19. 1836 [1837], descr.=Allium Linn.

canadensis Raf. ex Jacks\*. Ind. Kew. 2:2. 1894 (Allium canadense Linn.). North America.

clusiana Raf. ex Jacks\*. 1.c. (Allium clusianum Retz.). Europe.

flava Raf. ex Jacks\*. 1.c. (Allium flavum Linn.). Europe. moly Raf. ex Jacks\*. 1.c. (Allium moly Linn.). Europe.

nigrum Raf. ex Jacks\*. l.c. (Allium nigrum Linn.). Europ pallens Raf. ex Jacks\*. l.c. (Allium pallens Linn.). Europe. Europe. paniculatum Raf. ex Jacks\*. 1.c. (Allium paniculatum Linn.). Europe.

**KEPA** (Tourn.) Raf. Flora Tellur. 2:19. 1836 [1837], descr.= Allium Linn.

esculenta Raf. op. cit. 20, nom. (Allium cepa Linn.). Eurasia. fistulosa Raf. 1.c., nom. [Allium fistulosum Linn.]. Asia.

KINIA Raf. Speech. Sci. 1:87. 1814, descr. = Quid? biflora Raf. l.c., descr. "Isleta di Borneo" (Ut videtur ins.

Komoro) **KOZOLA** Raf. Fl. Tellur. 1:16. 1836 [1837], nom.; op. cit. 2:25.

1836 [1837], descr.=Heloniopsis A. Gray (1859). japonica Raf. op. cit. 25, descr. (Scilla japonica Thunb.).

Japan=Heloniopsis japonica (Thunb.) Maxim.

KROMON Raf. Fl. Tellur. 2:21. 1836 [1837], descr.=Allium Linn.

parviflorum Raf. 1.c., nom. (Allium parviflorum Linn.). Europe.

KUMARIA Raf. Aut. Bot. 137. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:94. 1921, nom. Ex descr.=Haworthia Duval (1809).

\*cymbiformis Raf. 1.c., descr. Africa.

spicata Raf. 1.c., descr.; Pennell, 1.c., nom. (Aloe retusa auct.). LAGOCODES Raf. Fl. Tellur. 2:24. 1836 [1837], descr.=Scilla Linn.

\*belgica Raf. Aut. Bot. 124. 1840, descr. (Hyacinthus belgicus Bory). Belgium=Scilla cernua (Linn.) Salisb.

cernua Raf. Fl. Tellur. 2:25. 1836 [1837], nom. (Scilla cernua Salisb.). Europe.

hyacinthoides Raf. 1.c., nom. (Scilla hyacinthoides Jacq.). Spain.

nutans Raf. l.c., nom.; Aut. Bot. 124. 1840, nom. (Scilla nutans Sm.; S. cernua Salisb.; Hyacinthus cernuus Linn.; H. non-scriptus Linn.). Europe=Scilla cernua (Linn.) Salisb.

patula Raf. 1.c., nom. (Scilla patula DC.). Spain=Scilla hispanica Mill.

LAOTHOE Raf. Fl. Tellur. 3:53. 1836 [1837], descr.=Chlorogalum Kunth (1843), nom. conserv. (Laothoe Raf., 1837).

pomeridiana Raf. l.c., descr. (Scilla pomeridiana DC.; Anthericum pomeridianum Ker-Gawl. Bot. Reg. 7: t. 564. 1821). South Africa=Chlorogalum pomeridianum (DC.) Kunth.

LEMOTRIS Raf. Fl. Tellur. 2:26. 1836 [1837], nom. nov. provis. Quamasia Raf. (1818) = Camassia Lindl. (1832),

nom. conserv. (Quamasia Raf., 1818; Cyanotris Raf., 1818).

LEMOTRYS Raf. Herb. Raf. 60. 1833, nom.; Fl. Tellur. 3:50.
1836 [1837], descr., nom. nov. provis. Quamasia Raf. (1818) =praec.

\*esculenta Raf. Herb. Raf. 60. 1833, nom. (Scilla esculenta Ker-Gawl.; Phalangium esculentum Nutt.). North America =Camassia esculenta (Ker-Gawl.) Robinson scilloides (Raf.) Cory, Rhodora 38:405. 1936. Robinson=Camassia

hyacinthina Raf. Fl. Tellur. 3:51. 1836 [1837], nom., nota; Aut. Bot. 57. 1840, nom., nota (Scilla esculenta Ker-Gawl.). Kentucky, Missouri=Camassia scilloides (Raf.) Cory.

\*LEPICAULON Raf. Fl. Tellur. 2:27. 1836 [1837], descr.= Anthericum Linn.

\*squameum Raf. I.c., nom. (Anthericum squameum Linn. f.). South Africa=Anthericum hispidum Linn.

LEPTILIX Raf. Neogen. 3. 1825, nom. alt. Conradia Raf.; New Fl. N. Am. 1:35. 1836, descr., ut subgen. Abama Adans.=Tofieldia Huds. (1778).

LEUCRINIS Raf. Fl. Tellur. 4:27. 1836 [1838], nom. nov. Leucocrimum Nutt. (1837).

LICINIA Raf. Fl. Tellur. 3:57. 1836 [1837], descr. = Anthericum Linn.

canaliculata Raf. 1.c., descr. (Anthericum canaliculatum Ait. var. rufum Lindl. Bot. Reg. 11: t. 877. 1825; Phalangium canaliculatum Poir.). South Africa=Anthericum canaliculatum Ait.

LILIUM Linn.

\*pratense Raf. First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom. Kentucky.

LIRIACTIS Raf. Fl. Tellur. 2:97. 1836 [1837], descr. = Tulipa Linn.

albiflora Raf. 1.c., descr. (Tulipa stellata Hook. Bot. Mag. 54: t. 2762. 1827). Kumaon.

**LIRIOPOGON** Raf. Fl. Tellur. 2:35. 1836 [1837], descr.= Tulipa Linn.

biflorum Raf. 1.c., nom. (Tulipa biflora Pall.). Caucasus.

celsianum Raf. 1.c., nom. (Tulipa celsiana DC.). Southwestern Europe=Tulipa australis Link. sylvestre Raf. 1.c., nom. (Tulipa sylvestris Linn.). Europe.

LOMARESIS Raf. Fl. Tellur. 3:59. 1836 [1837], descr. = Ornithogalum Linn.

alba Raf. I.c., descr. (Ornithogalum revolutum Jacq. Hort. Schoenbr. 1:46. t. 89. 1797; Sims Bot. Mag. 18: t. 653. 1803; Ker-Gawl. Bot. Reg. 4: t. 315. 1818). South Africa.

**LONCODILIS** Raf. Fl. Tellur. 2:24. 1836 [1837], descr.=Erio-

spermum Jacq. (1796). scapigera Raf. l.c., nom. (Ornithogalum paradoxum Jacq.). South Africa=Eriospermum paradoxum (Jacq.) Ker-Gawl.

LONCOMELOS Raf. Fl. Tellur. 2:24. 1836 [1837], descr. = Ornithogalum Linn.

japonicus Raf. ex Jacks\*. Ind. Kew. 2:110. 1894 (Ornithogalum japonicum Thunb.). Japan=Heloniopsis japonica (Thunb.) Maxim.

latifolius Raf. ex Jacks\*. 1.c. (Ornithogalum latifolium Linn.). Egypt, Arabia.

†narbonensis Raf. Aut. Bot. 56. 1840, nom. (Ornithogalum narbonense Linn.). Spain.

\*purpureus Raf. Sylva Tellur. 3:62. 1836 [1837], descr., sphalm. "purpurcus" (Scilla cupaniana Schult. f.; Lindl. Bot. Reg. 22: t. 1878. 1836). Sicily=Scilla cupani Guss.

†pyramidalis Raf. Aut. Bot. 56. 1840, nom. (Ornithogalum pyramidale Linn.). Portugal.

pyrenaicus Raf. ex Jacks\*. Ind. Kew. 2:110. 1894 (Ornitho-

galum pyrenaicum Linn.). Southern Europe. secundus Raf. ex Jacks\*. 1.c. (Ornithogalum secundum Jacq.).

South Africa=Urginea secunda (Jacq.) Baker.

suaveolens Raf. ex Jacks\*. l.c. (Ornithogalum suaveolens Jacq.). South Africa.

LONCOSTEMON Raf. Fl. Tellur. 2:21. 1836 [1837], descr.= Allium Linn.

victoriale Raf. 1.c., nom. (Allium victorialis Linn.). Eurasia. LONCOXIS Raf. Fl. Tellur. 3:58. 1836 [1837], descr.=Ornithogalum Linn.

sulfurea Raf. 1.c., descr. (Anthericum sulfureum Waldst. & Kit.; Sims, Bot. Mag. 53: t. 2623. 1826). Hungary=Ornithogalum sulfureum Schult. f.=O. pyrenaicum Linn.

#LUISTE Raf. Aut. Bot. 125. 1840, descr. subgen. Smilax Linn. (Type Smilax lanceolata Linn.)=Smilax Linn.

MALIGA Raf. ex Jacks\*. Ind. Kew. 2:150. 1894, sphalm.=seq. fastigiata Raf. ex Jacks\*. l.c.=Maligia fastigiata Raf. gracilis Raf. ex Jacks\*. l.c.=Maligia gracilis Raf. laxa Raf. ex Jacks\*. l.c.=Maligia laxa Raf.

\*MALIGIA Raf. Fl. Tellur. 2:19. 1836 [1837], descr. = Allium

Linn. \*fastigiata Raf. 1.c., descr. [Allium angulosum Linn.?]. Europe, Siberia.

\*gracilis Raf. 1.c., descr. (Allium gracile Ait.). North America=Nothoscordum fragrans Kunth.

\*laxa Raf. l.c., descr. (Allium angulosum sensu Pursh). North America=Allium reticulatum Fraser ex G. Don.

MAYANTHEMUM DC.; Raf. Med. Fl. 2:84. 1830, descr. (Smilacina Desf.) = Maianthemum Weber ex Wigg. (1780), nom. conserv. (Unifolium Zinn, 1757; Valetinia Heist., 1763).

\*racemosum Raf. 1.c., nom. [Maianthemum racemosum Link]. North America=Smilacina racemosa (Linn.) Desf.

\*stellatum Raf. l.c., nom. (Maianthemum stellatum Link). North America=Smilacina stellata (Linn.) Desf.

\*trifolium Raf. l.c., nom. Hab.?

\*MAYANTHUS Raf. Atl. Jour. 1:151. 1832, nom. (Convallaria ciliata Poir.) = Smilacina Desf. (1807), nom. conserv. (Vagneria Adans., 1763; Tovaria Neck., 1790; Polygonastrum Moench, 1794).

MEDEOLA Linn. \*uniflora Raf. Herb. Raf. 63. 1833, nom. Kentucky or Illinois

MELANTHIUM Linn.

\*erythrospermum Raf. Fl. Tellur. 2:33. 1836 [1837]. sub Crosperma Raf. (Helonias erythrosperma Michx.). South Carolina=? Amianthium muscaetoxicum (Walt.) A. Grav.

\*gramineum Raf. Herb. Raf. 70. 1833, nom. Long Island,

New Jersey, Chesapeake Bay.
\*longifolium Raf. Atl. Jour. 1:18. 1832, nom. North America. \*racemoides Raf. Fl. Tellur. 2:32. 1836 [1837], nom. sub Onixotis Raf., sphalm.=M. eucomoides Jacq.=Androcymbium eucomoides (Jacq.) Willd. South Africa.
\*MELENOMPHALE Raf. Fl. Tellur. 2:21. 1836 [1837], nom.

sub Melomphis Raf. [Melanomphale Reneaulme, Spec. Hist.

Pl. 89. 1611] = seq. MELOMPHIS Raf. Fl. Tellur. 2:21. 1836 [1837], descr., nom. nov. Melanomphale Renealm. Spec. Hist. Pl. 89. 1611= Ornithogalum Linn.

Think arabica Raf. op. cit. 22, descr. (Ornithogalum arabicum Linn.). Arabia, Egypt, Madeira, South Africa.

patens Raf. op. cit. 3:59. 1836 [1837], descr. (Ornithogalum corymbosum sensu Lindl. Bot. Reg. 11: t. 906. 1825). Chile

e-Ornithogalum corymbosum Ruiz & Pavon.

peruviana Raf. op. cit. 2:22. 1836 [1837], descr. (Ornithogalum corymbosum Ruiz & Pavon Fl. Peruv. 3:68. t. 300. 1802; Lindl. Bot. Reg. 11: t. 906. 1825; Hook. Bot. Mag. 59: t. 3179. 1832). Peru, Chile.

sicula Raf. 1.c., descr. (Ornithogalum arabicum sensu DC.).

Sicily=Ornithogalum thyrsoides Jacq. MELORIMA Raf. Fl. Tellur. 4:53. 1836 [1838], descr.=Fritillaria Linn.

cirrhosa Raf. 1.c., descr. (Fritillaria cirrhosa D. Don; Imperialis leucantha Fisch.). Altai Mountains.

NARTHECIUM Huds. (1762), nom. conserv. (Abama Adans., 1763).

scabrum Raf. Précis Découv. Somiol. 45. 1814, descr.; Jour.

Bot. (Desv.) 4:273. 1814, descr. Virginia.

NEMAMPSIS Raf. Fl. Tellur. 4:16. 1836

Dracaena Linn. (Pleomele Salisb., 1796). 1836 [1838], descr.=

ternifolia Raf. 1.c., descr. (Dracaena surculosa Linn.; Lindl. Bot. Reg. 14: t. 1169. 1828). East Africa (Pleomele surculosa N. E. Br.).

NEMAULAX Raf. F1. Tellur. 3:52. 1836 [1837], descr.= Albuca Linn.

fastigiata Raf. 1.c., descr. (Albuca fastigiata Dryand.; Ker-Gawl. Bot. Reg. 4: t. 277. 1818). South Africa.

NEMEXIA Raf. Neogen. 3. 1825, descr.; Med. Fl. 2:264. 1830, nom., nota = Smilax Linn.

cerulea Raf. Neogen. 3. 1825, nom. (Smilax herbacea Linn.). Eastern North America.

nigra Raf. I.c., nom. (Smilax peduncularis Muhl.). Eastern North America=S. herbacea Linn.

\*NEMEXIS Raf. Aut. Bot. 125, nom., 130. descr., 1840= Nemexia Raf. (1825)=Smilax Linn. \*cerulea Raf. op. cit. 131, descr. (Smilax peduncularis Muhl.).

Eastern North America = Smilax herbacea Linn.
var. oblongata Raf. l.c., descr. Alleghany Mountains.
\*elliptica Raf. l.c., descr. Alabama = ? Smilax hugeri (Small)
J. B. S. Norton; see Fernald, Rhodora 46:36. 1944.

\*glauca Raf. I.c., descr. Florida.
\*nigra Raf. op. cit. 130, descr. (Smilax herbacea Linn.).
Eastern North America—Smilax herbacea Linn.

NEMOPOGON Raf. Fl. Tellur. 2:27. 1836 [1837], descr.= Bulbine Linn.

glaucum Raf. l.c., descr. (Anthericum semibarbatum sensu Lodd. Bot. Cab. 4: t. 330. 1819; Hook. Bot. Mag. 59: t. 3129. 1832). Tasmania = Bulbine bulbosa Haw.

NICIPE Raf. Fl. Tellur. 3:54. 1836 [1837], descr.=Ornithogalum Linn.

nivea Raf. 1.c., descr. (Ornithogalum niveum Soland.; Ker-

Gawl. Bot. Reg. 3: t. 235. 1817). South Africa.

OBSITILA Raf. Fl. Tellur. 2:27. 1836 [1837], descr. (Type Anthericum hispidum Linn.)=Anthericum Linn.

ONCOSTEMA Raf. Fl. Tellur. 2:13. 1836 [1837], descr.=Scilla

villosa Raf. Fl. Tellur. 2:13. 1836 [1837], descr. (Scilla villosa Desf. Fl. Atl. 1:299. t. 85. f. 2. 1798; Hook. Bot. Mag. 60: t. 3211. 1833). Sicily, North Africa=Scilla villosa Desf.

ONIXOTIS Raf. Fl. Tellur. 2:32. 1836 [1837], descr.=Dipidax

Laws. ex Salisb. (1812)

ciliata Raf. 1.c., nom. (Melanthium ciliatum Linn. f.). South Africa=Dipidax ciliata (Linn.) Baker. secunda Raf. I.c., nom. (Melanthium secundum Desr.). South

Africa=Dipidax ciliata (Linn.) Baker.
viridis Raf. l.c., descr. (Melanthium "racemoides" sphalm.=
M. eucomoides Jacq. Ic. Rar. 2:22. t. 452. 1786-93; Sims,
Bot. Mag. 17: t. 641. 1803). South Africa=Androcymbium
eucomoides (Jacq.) Willd.

#ONYXULA Raf. New Fl. N. Am. 2:78, 1836 [1837], descr., ut subgen. Clintonia Raf.; Life of Travels 60, 1836, nom.; Fl. Tellur. 4:17, 1836 [1838], nom., ut subgen. Clintonia

Raf.=Clintonia Raf.

#OPLAX Raf. Aut. Bot. 125. 1840, descr., subgen. Smilax Linn.

(Type Smilax caduca Linn.) = Smilax Linn.

ORNITHOGALON Raf. Fl. Tellur. 2:22. 1836 [1837] = Ornithogalum Linn.

\*ceruleum Raf. op. cit. 23, descr. Sicily=Ornithogalum ceruleum Raf.=Scilla cupani Guss.

ORNITHOGALUM Linn.

ceruleum Raf. Car. Nuov. Gen. Sp. Sicil. 85. 1810, descr.; Stat. Gen. Sicil. 28. 1810, nom. (Scilla cupani Guss., 1825). Sicily=Scilla cupani Guss.

pauciflorum Raf. Précis Découv. Somiol. 44. 1814 (Ornithogaium), descr.; Jour. Bot. (Desv.) 4:272. 1814, descr.
Sicily=O. excapum Ten.
patulum Raf. 11.cc., descr. Sicily=O. montanum Cirillo.
speciosum Raf. Car. Nuov. Gen. Sp. Sicil. 85. 1810, nom. nov.

Scilla peruviana Linn. Sicilv.

\*ORNITHOGLOSON Raf. Fl. Tellur. 2:32. 1836 [1837], descr. =Ornithoglossum Salisb. (1806).

\*viride Raf. 1.c., nom. (Melanthium viride Linn. f.). South Africa=Ornithoglossum viride (Linn f.) Ait.

\*OSMANTHES Raf. Med. Fl. 1:38. 1828, nom., nota, in obs., iter. Man. Med. Bot. 38. 1841 (Type Aletris fragrans Linn.). Africa=Dracaena Linn. (Pleomele Salisb., 1796).

OXYTRIA Raf. Fl. Tellur. 2:26. 1836 [1837], descr. = Schoenolirion Durand (1855), nom. conserv. (Amblostima Raf.,

1837, Oxytria Raf., 1837). crocea Raf. 1.c., descr. (Phalangium croceum Michx.). Southeastern United States=Schoenolirion \*croceum (Michx.) Am. Bot. Flor. 345. 1870; A. Gray, Am. Nat. 10: Wood, 407. 1876.

OZIROË Raf. Fl. Tellur. 3:53. 1836 [1837], descr. = Ornithogalum Linn.

leuchlora Raf. op. cit. 54, descr. (Ornithogalum chloroleucum Lindl. Bot. Reg. 22: t. 1853. 1836). Chile=Ornithogalum biflorum D. Don.

#PALTRIMA Raf. New Fl. N. Am. 1:35. 1836, descr., subgen. Tofieldia Huds. (Types Tofieldia palustris Huds., T. borealis Wahl.).

PANSTENUM Raf. Fl. Tellur. 2:20. 1836 [1837], descr.=

Allium Linn.

monspessulanum Raf. op. cit. 21, descr. (Allium monspessulanum Gouan, Illustr. Bot. t. 16. 1773). Europe=Allium nigrum Linn.

\*PAPILISTA Raf. Aut. Bot. 137. 1840, nom., sub Tulista Raf. (Type Aloe verrucosa Mill.)=Gasteria Duval (1809).

\*PARILAX Raf. Aut. Bot. 125, 129. 1840, nom.=seq. \*laurifolia Raf. l.c., descr. (Smilax laurifolia Linn.). Virginia to Louisiana=Smilax laurifolia Linn.

\*pumila Raf. op. cit. 130, descr. (Smilax pumila Walt.; S. pubera Michx.). Southeastern United States=Smilax pumila Walt.

PARILLAX Raf. Neogen. 3. 1825, descr.; Med. Fl. 2:264. 1830, nom.; Aut. Bot. 130. 1840, nom. sub Aniketon Raf. = Smilax Linn.

laurifolia Raf. ex Jacks\*. Ind. Kew. 2:426. 1894 (Smilax laurifolia Linn.). Southeastern United States.

pumila Raf. ex Jacks\*. 1.c. (Smilax pumila Walt.). South-

eastern United States. **PELOTRIS** Raf. Aut. Bot. 125. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:94. 1921, nom.=Muscari Mill. (1752). paniculatus Raf. 1.c., nom. (Hyacinthus paniculatus Lam.); Pennell, 1.c., nom. Italy=Muscari comosum Mill.

PENTILIUM Raf. Herb. Raf. 52. 1833, nom. subnud. Quid.? acuminatum Raf. 1c., nom. Rocky Mountains or Oregon. PHALANGIUM Adans. (1763)=Anthericum sensu Raf.=Ur-

ginea Steinh. (1834).

\*physodes Raf. Fl. Tellur. 2:27. 1836 [1837], nom. (Anthericum physodes Jacq.). South Africa=Urginea physodes (Jacq.) Baker.

\*pusillum Raf. 1.c., nom. (Anthericum pusillum Jacq.). South

Africa=Urginea pusilla (Jacq.) Baker. #PHYLLANTHERUM Raf. Jour. Phys. Chim. Hist. Nat. 91:72. 1820, descr. subgen. Trillium Linn.; Ann. Gén. Sci. Phys. 7:19. 1820, descr., subgen. Trillium Linn. (Type Trillium erectum Linn.)=Trillium Linn.

PILASIA Raf. Fl. Tellur. 3:53. 1836 [1837], descr.=Urginea

Steinh. (1834).

filifolia Raf. l.c., descr. (Anthericum filifolium Jacq.; Albuca filifolia Ker-Gawl. Bot. Reg. 7: t. 557. 1821). South Africa — Urginea filifolia (Jacq.) Steinh.

PLEISOLIRION Raf. Fl. Tellur. 2:28. 1836 [1837], descr. nom.

nov. Liliastrum Link (1829) = Paradisea Mazzuc. (1814).

liliastrum Raf. 1.c., nom. (Anthericum liliastrum Linn.: Phalangium liliastrum Brot.); Aut. Bot. 57. 1840, nom. Italy=

Paradisea liliastrum (Linn.) Bertol.

PLEXINIUM Raf. Fl. Tellur. 2:32. 1836 [1837], descr.=
Androcymbium Willd. (1808).

punctatum Raf. 1.c., descr. (Melanthium capense Linn.; M. monopetalum Linn. f.). South Africa=Androcymbium capense (Linn.) Druce (A. leucanthum Willd.).

PLEXISTENA Raf. F1. Tellur. 2:20. 1836 [1837], descr.=

Allium Linn.

margaritea Raf. 1.c., descr. (Allium margaritaceum Sibth. & Sm.). Greece.

#PODANISIA Raf. New Fl. N. Am. 2:78. 1836 [1837], nom. alt. Cuscumia Raf., ut subgen. Clintonia Raf. = Clintonia Raf.

**PODONIX** Raf. Fl. Tellur. 4:28. 1836 [1838], descr.=Tulipa Linn.

albiflora Raf. 1.c., descr. (Tulipa biflora Pallas; Ker-Gawl. Bot. Reg. 7: t. 535. 1821). Caucasus region.

PRASKOINON Raf. Fl. Tellur. 4:29. 1836 [1838], descr. = Allium Linn.

longifolium Raf. 1.c., descr. (Allium longifolium Spreng.; Lindl. Bot. Reg. 12: t. 1034. 1827; Schoenoprasum longi-folium H.B.K.). Mexico.

PROTANTHERA Raf. Med. Repos. II. 3:422. 1806, nom. Quid?

phalangioides Raf. 1.c., nom. Central Atlantic United States.

tenuis Raf. l.c., nom. Central Atlantic United States.

PUBILARIA Raf. Fl. Tellur. 2:27. 1836 [1837], descr. sub
Obsitila Raf. = Simethis Kunth (1843), nom. conserv. (Pubilaria Raf., 1837).

bicolor Raf. 1.c., nom. (Phalangium bicolor DC.). Mediterranean region = Simethis bicolor (Desf.) Kunth.

QUAMASIA Raf. Am. Monthly Mag. Crit. Rev. 2:265. 1818, nom.; op. cit. 4:189. 1819, nom.; Fl. Tellur. 2:25. 1836 [1837], descr.; op. cit. 3:51. 1836 [1837], descr. (Camassia Lindl.) = Camassia Lindl. (1832), nom. conserv. (Quamasia Lindl.) = Camassia Lindl. (1832), nom. conserv. (Quamasia Raf., 1818, Cyanotris Raf., 1818).

esculenta Raf. Am. Monthly Mag. Crit. Rev. 2:265. 1818 nom. (Phalangium quamash Pursh; Scilla esculenta Nutt.) Med. Fl. 2:255. 1830, nom., nota; Fl. Tellur. 2:26. 1836 [1837], nom. (Phalangium esculentum Nutt.; Scilla esculenta Ker-Gawl. Bot. Mag. 37: t. 1594. 1813); Fl. Tellur. 3:51. 1836 [1837], descr., excl. cit. Lindl. Bot. Reg. 18: t. 1486. 1832. Kentucky, p.p.=Camassia scilloides (Raf.) Cory, p.p.=Camassia quamash (Pursh) Greene; see Gould, Am. Midl. Nat. 28:725, 728. 1942.

scilloides Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824,

nom. (Phalangium quamash Pursh)=praec. var. alba Raf. l.c., nom. Kentucky.

QUAMASSIA Raf. ex Jacks\*. Ind. Kew. 2:670. 1895=Quamasia Raf. (1818) = Camassia Lindl. (1832), nom. conserv.

**QUELTIA** Salisb.; Raf. Fl. Tellur. 4:123. 1836 [1838], descr.= Narcissus Linn.

montana Raf. 1.c., descr. (Narcissus poculiformis Salisb. (sphalm. Raf. "poculigera"); N. montanus Ker-Gawl. Bot. Reg. 2: t. 123. 1816). Pyrenees Mountains=N. poculiformis Salisb.

RACEMARIA Raf. Atl. Jour. 1:151. 1832, nom. nov. provis. (Convallaria ciliata Poir.)=Smilacina Desf. (1807), nom. conserv. (Vagnera Adans., 1763; Tovaria Neck., 1790; Polygonastrum Moench, 1794).

REGGERIA Raf. Aut. Bot. 55. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:93. 1921, nom.=Gagea Salisb. (1806).

bohemica Raf. l.c., descr. (Ornithogalum bohemicum Zauchn.): Pennell, I.c., nom. Bohemia = Gagea pygmaea Salisb.

\*rupestris Raf. 1.c., nom. alt. Reggeria bohemica Raf. = Gagea pygmaea Salisb.

RUSCUS Linn.

anthopus Raf. Fl. Tellur. 4:26. 1836 [1838], descr. (Ruscus androgynus sensu Sims Bot. Mag. 44: t. 1898. Canary Islands—Semele androgyna (Linn.) Kunth. t. 1898. 1817).

latifolius Raf. l.c., descr. (Ruscus androgynus sensu Willd.; Hook. Bot. Mag. 57: t. 3029. 1830). Madeira=Semele androgyna (Linn.) Kunth.

\*SABADILLA Raf. Fl. Tellur. 2:30. 1836 [1837], nom.= Sabadilla Brandt & Ratzeb. (1837) = Schoenocaulon A. Gray (1837).

\*officinalis Raf. l.c., descr. (Veratrum sabadilla Retz.). Mexico=Sabadilla officinarum Brandt & Ratzeb. (S. officinalis Standl., 1925)=Schoenocaulon officinale (Retz.) A. Gray.

\*SANSEVERIA Raf. Aut. Bot. 63. 1840, nom.=Sansevieria Thunb. (1794), nom. conserv. (Acynthia Medic., 1786). \*carnea Raf. Aut. Bot. 63. 1840, descr. "African?" [China]=

Sansevieria carnea Andr. = Reineckia carnea (Andr.) Kunth.

SCADUAKINTOS Raf. Fl. Tellur. 4:23. 1836 [1838], descr. = Brodiaea Sm. (1811), nom. conserv. (Hookera Salisb., 1808).

umbellaris Raf. op. cit. 24, descr. (Brodiaea grandiflora Pursh, non Sm.). Northwestern and Western United States = Brodiaea lactea (Lindl.) S. Wats. (Hesperoscordum lacteum Lindl.).

SCILLA Linn.; see also Skilla Raf. \*amena Raf. First Cat. Bot. Gard. Transylv. Univ. 23. 1824, nom.=Scilla amoena Linn. Europe.

fistulosa Raf. Précis Découv. Somiol. 45. 1814, descr.; Jour.

Bot. (Desv.) 4:272. 1814, descr. Sicily. #SESSILIUM Raf. Med. Fl. 2:97. 1830, descr., subgen. Trillium Linn.; Aut. Bot. 132. 1840, nom. (Type Trillium sessile Linn.).

\*SIGILARIA Raf. Atl. Jour. 1:151. 1832, nom.=seq.

†SIGILLARIA Raf. Am. Monthly Mag. Crit. Rev. 3:100. 1818, nom. nov. Smilacina Desf.; op. cit. 4:189, 192, 357. 1819, nom.; Jour. Phys. Chim. Hist. Nat. 89:261. 1819, nom.; Isis von Oken 1820, 1: Lit. Anz. 240. 1820, nom.; Med. Fl. 2:83. f. 85. 1830, descr.; Loud. Gard. Mag. 8:246. 1832, nom., iter. Schlecht. Linnaea 8: Lit.-Ber. 70. 1832, iter. Britten, Jour. Bot. 38:226. 1900; Fl. Tellur. 4:18. 1836 [1838], nom. quoad syn. Desv.=Smilacina Desf. (1807), nom. conserv., et Polygonatum Mill. (1754), quoad spp. var. angustifolia Raf. Aut. Bot. 68. 1840, descr. Alabama.

\*biflora Raf. Med. Fl. 2:85. 1830, nom. [Convallaria biflora Walt.]; Aut. Bot. 68. 1840, descr. Pennsylvania, Kentucky = Polygonatum biflorum (Walt.) Ell.

\*canaliculata Raf. Aut. Bot. I.c., nom. (Convallaria canaliculata Willd.). Alleghany Mountains=Polygonatum bi-florum (Walt.) Ell.

ciliata Raf. Atl. Jour. 1:151. 1832, descr. (Sigilaria) Islands of the St. Lawrence River near Lake Ontario=Polygonatum biflorum (Walt.) Ell.

\*elliptica Raf. Aut. Bot. 68. 1840, descr. Alleghany Mountains.

\*hirta Raf. op. cit. 67, nom. (Convallaria hirta Bosc). Alleghany Mountains=Polygonatum biflorum (Walt.) Ell. \*latifolia Raf. Med. Fl. 2:85. 1830, nom.

†multiflora Raf. Casket 1828:43. 1 f. 1828, descr.; Sat. Eve. Post 7 (338):[4]. 1 f. 1828, descr.; Med. Fl. 2:84. f. 85. 1830, descr. Eastern North America=Polygonatum commutatum A. Dietr.

\*pubescens Raf. Med. Fl. 2:85. 1830., nom. [Convallaria pubescens Willd.]. Eastern North America=Polygonatum biflorum (Walt.) Ell.

SIMIRA Raf. Fl. Tellur. 4:28. 1836 [1838], descr. = Scilla Linn.

japonica Raf. 1.c., descr. (Ornithogalum japonicum Thunb.). Japan=Scilla japonica Baker, non Scilla japonica Thunb. =Scilla thunbergii Miyabe & Kudo (1921)=Scilla sinensis (Lour.) Merr.

SIPHYALIS Raf. Fl. Tellur. 4:17. 1836 [1838], descr.; Aut. Bot. 67. 1840, nom.=Polygonatum Mill. (1754).

nitida Raf. l.c., descr. (Convallaria oppositifolia Wall.; Lodd. Bot. Cab. 7: t. 640. 1822; Hook. Exot. Fl. 2: t. 125. 1825; Hook. Bot. Mag. **63**: *t. 3529*. 1836). India=Polygonatum oppositifolium (Wall.) Royle.

SIRAITOS Raf. Fl. Tellur. 4:26. 1836 [1838], descr.=Chiono-

graphis Maxim. (1867)

aquaticus Raf. op. cit. 27, descr. (Melanthium luteum Thunb. [non Veratrum luteum Linn.]); New Fl. N. Am. 4:103. [1838], nom., nota. Japan=Chionographis japonica (Willd.) Max.

SKILLA Raf. Fl. Tellur. 1:18, 74. 1836 [1837], nom. nov.
Scilla Linn.; op. cit. 2:13. 1836 [1837], nom., nota.; op. cit.
3:61. 1836 [1837], nom.; Aut. Bot. 56. 1840, nom.=Scilla Linn.

\*amena Raf. Aut. Bot. 56. 1840, nom. (Scilla amoena Linn.).

Southern Europe.

\*autumnalis Raf. l.c., nom. (Scilla autumnalis Linn.). Medi-

terranean region.

\*esculenta Raf. Fl. Tellur. 3:51. 1836 [1837], nom.; Aut. Bot. 57. 1840, nom. [Scilla esculenta Ker-Gawl.]. Eastern North America=Camassia esculenta (Ker-Gawl.) Robin-

\*fistulosa Raf. Fl. Tellur. 3:61. 1836 [1837], descr. (Scilla

fistulosa Raf.). Sicily=Scilla cupani Guss.

\*maritima Raf. op. cit. 2:13. 1836 [1837], nom. (Scilla maritima Linn.). Mediterranean region=Urginea maritima (Linn.) Baker.

\*mixta Raf. Aut. Bot. 56. 1840, descr. Island of Angelsey.
\*plumbea Raf. Fl. Tellur. 3:51. 1836 [1837], nom. South
Africa=Scilla plumbea Lindl.

\*pumila Raf. op. cit. 2:59. 1836 [1837], nom. sub Tractema pumila Raf. Iberian Peninsula=Scilla pumila Brot.=S. monophyllos Link.

SKIZIMA Raf. Fl. Tellur. 2:32. 1836 [1837], descr.=Astelia Banks & Soland. (1810), nom. conserv. (Funckia Willd.,

pumila Raf. 1.c., descr. (Melanthium pumilum Forst.). Tierra

del Fuego=Astelia pumila (Forst.) R. Br. SKOINOLON Raf. Fl. Tellur. 4:27. 1836 [1838], nom. nov. Schoenocaulon A. Gray.

SMILAX Linn.

\*compressa Raf. Aut. Bot. 128. 1840, descr. Alabama.

\*cynanchifolia Raf. op. cit. 129, descr. Siberia?

\*deltifolia Raf. op. cit. 127, descr. Alleghany and Wasioto Mountains. An Smilax caduca Linn. fide Raf. 1.c.=S. rotundifolia Linn.

var. compressa Raf. 1.c., descr. Wasioto Mountains. \*dentata Raf. op. cit. 128 nom., sphalm.=Smilax hastata Jacq., fide Raf. op. cit. 138. Santo Domingo.

\*dichotoma Raf. op. cit. 126, descr., nom. nov. Smilax caduca Linn. Canada to Carolina = S. rotundifolia Linn.

\*dilatata Raf. op. cit. 128, descr. Alabama. \*farinosa Raf. op. cit. 129, nom. nov. Smilax pseudochina Linn. Carolina to Florida.

\*fragrans Raf. Med. Fl. 2:264. 1830, nom. Hab.?

\*heterophyla Raf. Med. Fl. 2:204. 1830, nom. Hab.?

\*heterophyla Raf. Aut. Bot. 128. 1840, descr. Florida.

heterophyla Raf. Med. Repos. II. 5:359. 1808, descr.; Jour.

Bot. (Paris) 1:226. 1809, descr. Delaware, Maryland.

\*hispida Raf. Aut. Bot. 125. 1840, descr. Western Kentucky.

\*lomoplis Raf. op. cit. 128, descr. (Smilax hastata Willd., non

Jacq.). Carolina to Florida=Smilax bonanox Linn.

\*membranacea Raf. op. cit. 129, descr. Alabama.

\*muricata Raf. op. cit. 127, descr. Florida.

\*muricata Raf. op. cit. 127, descr. Florida.

\*pandurata Raf. op. cit. 127, descr. Southern New Jersey =S. tamnifolia Michx.

\*platoplis Raf. op. cit. 126, descr. Pennsylvania to Kentucky and Carolina.

\*reniformis Raf. 1.c., descr. New Jersey to Kentucky. \*rhombifolia Raf. Aut. Bot. 129. 1840, descr. Siberia? SPIRANTHERA Raf. Fl. Tellur. 4:31. 1836 [1838], descr.=

Eustrephus R. Br. (1810).

ovata Raf. 1.c., descr. (Eustrephus latifolius R. Br.). Australia.

STELMESUS Raf. Fl. Tellur. 2:19. 1836 [1837], descr.= Allium Linn.

stellatus Raf. l.c., descr. (Allium stellatum Fraser; Ker-Gawl. Bot. Mag. 38: t. 1576. 1813); Aut. Bot. 62. 1840, nom. Alabama, Florida.

STEMODOXIS Raf. Fl. Tellur. 2:20. 1836 [1837), descr.=

Allium Linn.

juncea Raf. 1.c., descr. (Allium junceum Sibth. & Sm.). Crete. STREPSIPHYLA Raf. Fl. Tellur. 3:60. 1836 [1837], descr.=

Drimia Jacq. (1786).

undulata Raf. I.c., descr. (Drimia undulata Jacq.). South
Africa=Scilla undulata (Jacq.) Baker.

villosa Raf. I.c., descr. (Drimia villosa Lindl. Bot. Reg. 16:
t. 1346. 1830). South Africa.

STREPTOPUS Michx.
undulatus Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818,
nom. Alleghany Mountains or Ohio.

Nom. Aleghaly Modulatis of Olio.

STYRANDRA Raf. Am. Monthly Mag. Crit. Rev. 2:266. 1818, nom. (Smilacina canadensis Pursh); op. cit. 4:189. 357. 1819, nom. (Convallaria bifolia Linn.); Jour. Phys. Chim. Hist. Nat. 89:102. 1819, descr.; Isis von Oken 1820, 1: Hist. Nat. 89:102. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 240. 1820, descr. (Convallaria bifolia Linn.; C. canadensis Poir.); Med. Fl. 2:84. 1830, descr.; op. cit. 2: 266. 1830, nom.; Loud. Gard. Mag. 8:246. 1832, nom., iter. Schlecht. Linnaea 8: Lit.-Ber. 69. 1833, iter. Britten, Jour. Bot. 38:226. 1900; New Fl. N. Am. 1:17. 1836, nom., nota; Fl. Tellur. 4:18. 1836 [1838], descr. — Maianthemum Webber ex Wigg. (1780), nom. conserv. (Unifolium Zinn, 1757). \*amplexicaulis Raf. Aut. Bot. 68. 1840, descr. (Convallaria bifolia auct. Am.). Canada and the Alleghany Mountains — Maianthemum, canadense Desf. (Unifolium, canadense

Maianthemum canadense Desf. (Unifolium

Greene).

†bifolia Raf. Casket 1827:114. f. 11. 1827, descr. (Convallaria bifolia auct. Am.); Sat. Eve. Post 6(295):[4]. 1 f. 1827, descr.; Med. Fl. 2:84. 1830, nom. Eastern North America= Maianthemum canadense Desf.

\*petiolaris Raf. Aut. Bot. 68. 1840, descr. (Convallaria bifolia Linn.). Europe, Siberia=Maianthemum bifolium (Linn.) F. W. Schmidt.

\*SUCCOSARIA Raf. Aut. Bot. 137. 1840, nom. (Type Aloe spicata Linn. f.) = Aloe Linn.

SYNCODIUM Raf. Fl. Tellur. 2:22, 1836 [1837], descr.=Myogalum Link (1829) = Ornithogalum Linn.

nutans Raf. 1.c., descr. (Ornithogalum nutans Linn.); Aut. Bot. 56. 1840, nom. Europe.

TENICROA Raf. Fl. Tellur. 3:52. 1836 [1837], descr.=

Urginea Steinh. (1834).

fragrans Raf. op. cit. 53, descr. (Anthericum fragrans Jacq.: Albuca fugax Ker-Gawl. Bot. Reg. 4: t. 311. 1818). South Africa=Urginea fragrans (Jacq.) Steinh.

†TILCUSTA Raf. Fl. Tellur. 1:16. 1836 [1837], nom.; op. cit. 4:15. 1836 [1838], descr.=Tupistra Ker-Gawl. (1814). nepalensis Raf. Fl. Tellur. 4:15. 1836 [1838], descr. Nepales. Tupistra aurantiaca Wall. (Campylandra aurantiaca Baker).

TOFIELDIA Huds.

\*capitata Raf. Aut. Bot. 65. 1840, descr. Labrador = Tofieldia palustris auct. plur., non Huds.=T. pusilla (Michx.) Pers.; see Stearn, Jour. Linn. Soc. Bot. 53:202. 1947.

TOMOXIS Raf. Fl. Tellur. 3:54. 1836 [1837], descr.=Ornitho-

galum Linn.

coarctata Raf. 1.c., descr. (Ornithogalum coarctatum Jacq. Ic. Pl. Rar. 2:20. t. 435. 1786-93). South Africa.

odorata Raf. l.c., descr. (Ornithogalum odoratum Jacq. Ic. Pl. Rar. 2:20. t. 432. 1786-93; Andr. Bot. Repos. 4: t. 260. 1802). South Africa=O. suaveolens Jacq.

virens Raf. I.c., descr. (Ornithogalum virens Lindl. Bot. Reg. 10: t. 814, 1824). South Africa.

TRACHINEMA Raf. Fl. Tellur. 2:27. 1836 [1837], descr.= Anthericum Linn.

hispida Raf. 1.c., nom. (Anthericum hispidum Linn.). South

vespertina Raf. 1.c., nom. (Phalangium vespertinum Poir.).

South Africa = Anthericum falcatum Linn. f. TRACTEMA Raf. Fl. Tellur. 2:58. 1836 [1837], descr. = Scilla Linn.

pumila Raf. op. cit. 59, descr. (Scilla pumila Brotero; Hook. Bot. Mag. 57: t. 3023. 1830). Portugal=S. monophyllos Link

#TRAXORDUM Raf. Aut. Bot. 59. 1840, nom., subgen. Aglitheis Raf. (Type Allium tricoccum Ait.)=Allium Linn.

TRIALLOSIA Raf. Fl. Tellur. 3:60. 1836 [1837], descr.=
Lachenalia Jacq. (1787).

pallida Raf. f.c., descr. (Lachenalia pallida Ait.; Lindl. Bot.
Reg. 16: t. 1350. 1830). South Africa.

\*TRICHOPETALON Raf. Fl. Tellur. 3:57. 1836 [1837], nom.=
Trichopetalum Lindl. (1832) (Bottionea Colla, 1834).

\*gracile Raf. l.c., nom. (Trichopetalum gracile Lindl.). Chile
(Rattionea the controller. Colla) = Trichopetalum gracile (Bottionea thysantoides Colla) = Trichopetalum gracile Lindl. \*stellatum Raf. l.c., nom. (Trichopetalum stellatum Lindl. [Anthericum? plumosum Hook. Bot. Mag. 58: t. 3084. 1831]). Chile=praec. TRILLIUM Linn. acuminatum Raf. Med. Repos. II. 5:361. 1808, descr.; Jour. Bot. (Paris) 1:230. 1809, descr.; Med. Fl. 2:99. 1830, descr.; Aut. Bot. 133. 1840, descr. Appalachian Mountains, Pennsylvania, Alabama=T. erectum Linn. amblopsis Raf. Med. Fl. 2:99. 1830, descr.; Aut. Bot. 1.c., descr. Alleghany Mountains.

var. angustifolium Raf. Med. Fl. 1.c., nom.

cuneatum Raf. 1.c., descr. incarnatum Raf. l.c., nom. longifolium Raf. 1.c., nom. pumilum Raf. 1.c., nom. stenopetalum Raf. 1.c., nom. undulatum Raf. 1.c., nom. angustifolium Raf. Med. Fl. 2:98. 1830, descr.; Aut. Bot. 132. 1840, nom. Kentucky. var. gracile Raf. Med. Fl. 1.c., nom. maculatum Raf. 1.c., nom. roseum Raf. 1.c., nom. stenopetalum Raf. l.c., nom. \*atropurpureum Raf. Aut. Bot. 134. 1840, descr. Alleghany Mountains. \*balduinianum Raf. op. cit. 135, descr. Georgia, Florida. Prob. =T. nervosum Ell. \*brevipes Raf. op. cit. 134, descr. Alabama. brevipetalum Raf. Med. Fl. 2:100. 1830, descr.; Aut. Bot. 134, 1840, descr. Near Lakes Ontario and Erie. var. latifolium Raf. Med. Fl. 1.c., nom. roseum Raf. l.c., nom. catesbaei Ell.; Raf. Med. Fl. 2:101. 1830, descr. Carolina. var. incarnatum Raf. 1.c., nom. obovatum Raf. I.c., nom. \*cuneatum Raf. Aut. Bot. 133. 1840, descr. Unaka Mountains. North Carolina (T. hugeri Small, 1903).
\*declinatum Raf. op. cit. 135, descr. Alabama, Florida. Prob. =T. nervosum Ell.
divaricatum Raf. Med. Fl. 2:102. 1830, descr. Alleghany and Cumberland Mountains. and Cumberland Mountains.

flavum Raf. op. cit. 100, descr.; Aut. Bot. 133. 1840, descr.

New York to Virginia=T. erectum Linn.

\*flexipes Raf. Aut. Bot. 133. 1840, descr. Western Kentucky
and Tennessee (T. erectum Linn. var. declinatum A. Gray,
1867; T. declinatum Gleason, 1906; T. gleasoni Fernald,
1932); see Fernald, Rhodora 46:16. 1944.

glaucum Raf. Med. Fl. 2:102. 1830, descr.; Aut. Bot. 135.
1840, nom. Pennsylvania to Alabama=T. cernuum Linn.

grandiforum Salish: Raf. Med. El. 2:100. 1830, descr. Lake. grandiflorum Salisb.; Raf. Med. Fl. 2:100. 1830, descr. Lake Ontario to Virginia and Kentucky. var. elatior Raf. l.c., nom. longifolium Raf. l.c., nom. macropium Raf. l.c., nom. obovatum Raf. 1.c., nom. parviflorum Raf. 1.c., nom. pumilum Raf. 1.c., nom. rhomboideum Raf. 1.c., nom. roseum Raf. 1.c., nom.; Aut. Bot. 134. 1840, descr. Kentucky.
hamosum Raf. Med. Fl. 2:101. 1830, descr.; Aut. Bot. 135. 1840, nom. Pennsylvania (Pocono and Tuscarora Moun-

tains) = T. cernuum Linn.

Wats., 1879),

Ohio, Kentucky, Arkansas=T. sessile Linn. var. albiflorum Raf. Med. Fl. l.c., nom. parviflorum Raf. Il.cc., nom. Kentuck

Kentucky.

†lirioides Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818, nom.; First Cat. Bot. Gard. Transylv. Univ. 16. 1824, nom.; Med. Fl. 2:100. 1830, descr.; Aut. Bot. 134. 1840, nom., nota. Ohio, Illinois=T. grandiflorum (Michx.) Salisb. var. crassicaule Raf. Med. Fl. 2:101. 1830, nom. longifolium Raf. l.c., nom. maculatum Raf. 1.c., nom. parviflorum Raf. 1.c., nom. pumilum Raf. 1.c., sphalm. "pumitum," nom. roseum Raf. 1.c., spnatm. pumtum, nom.
roseum Raf. 1.c., nom.
undulatum Raf. 1.c., nom.
longiflorum Raf. Med. Fl. 2:97. 1830, descr.; Casket 1832:3.
1832, nom.; Sat. Eve. Post 12(571):[4]. 1832, nom.; Aut.
Bot 132, 1840, nom. Lake Optoris to Alphana T. Tescsile. Bot. 132. 1840, nom. Lake Ontario to Alabama=T. sessile Linn. var. atropurpureum Raf. Med. Fl. 1.c., nom. latifolium Raf. I.c., nom. maculatum Raf. 1.c., nom. parvifolium Raf. 1.c., nom. pumilum Raf. 1.c., nom. rubricaule Raf. l.c., nom.
undulatum Raf. l.c., nom.
maculatum Raf. Med. Fl. 2:103. 1830, descr.: Aut. Bot. l.c., nom. Illinois to Florida (T. underwoodii Small, 1897) medium Raf. Med. Fl. op. cit. 102, descr.: Casket 1832:3, 1832, nom.; Sat. Eve. Post 12(571):[4]. 1832, nom.; Aut. Bot. 135. 1840, nom. (Trillium cernuum auctt.). New England to Virginia=T. cernuum Linn. var. gracile Raf. Med. Fl. l.c., nom. grandiflorum Raf. 1.c., nom. pudicum Raf. 1.c., nom. undulatum Raf. 1.c., nom. membranaceum Raf. Med. Fl. 2;98. 1830, descr.; Aut. Bot. 132. 1840, nom. Ohio, Kentucky. Illinois and Missouri = T. sessile Linn. var. ellipticum Raf. Med. Fl. 1.c., nom. var. ellipticum Raf. Med. Fl. l.c., nom.
obovatum Raf. l.c., nom.
parvifolium Raf. l.c., nom.
nutans Raf. Med. Fl. 2:99. 1830, descr.; Casket 1832:3. 1832, nom.; Sat. Eve. Post 12(571):[4]. 1832, nom.; Aut. Bot. 133. 1840, descr. (Trillium erectum auctt.) Canada to Carolina=Trillium erectum Linn.
var. album Raf. Med. Fl. l.c., nom.
atronurpurpum Raf. Le. nom. atropurpureum Raf. l.c., nom. bicolor Raf. I.c., nom.
flexuosum Raf. I.c., nom.
obovatum Raf. I.c., nom.
rhomboideum Raf. I.c., nom. undulatum Raf. 1.c., nom. obcordatum Raf. Med. Fl. 2:101. 1830, descr.; Aut. Bot. 135. 1840, nom. Alleghany Mountains. pictum Pursh; Raf. Med. Fl. 2:99. 1830. descr.: Casket 1832: 1832, nom.; Sat. Eve. Post 12(571):[4]. 1832, nom. Canada to Carolina. var. roseum Raf. Med. Fl. l.c., nom. undulatum Raf. l.c., nom. \*pumilum Raf. Med. Repos. II. 5:354. 1808, nom.: Jour. Bot. (Paris) 2:173. 1809, nom. Central Atlantic United States. An T. pumilum Michx. (1803)?
recurvatum Beck; Raf. Med. Fl. 2:98. 1830, descr. Kentucky to Missouri. var. obovatum Raf. 1.c., nom. maculatum Raf. 1.c., nom. sessilifolium Raf. 1.c., nom. undulatum Raf. 1.c., nom. \*reflexum Raf. Western Minerva 41. 1821, nom., nota, iter. Fox, Science II. 12:213. 1900: First Cat. Bot. Gard. Transylv. Univ. 16. 1824, nom. Kentucky.

\*revolutum Raf. l.c., nom., iter. Fox, l.c. Kentucky.

\*rhombifolium Raf. Aut. Bot. 133. 1840, descr. Wasioto Mountains. rotundifolium Raf. Med. Fl. 2:97. 1830. descr.; Casket 1832: 3. 1832, nom.; Sat. Eve. Post 12(571):[4]. 1832, nom.; Aut. Bot. 132. 1840, nom. Lake Erie to Tennessee=T. isanthum Raf. op. cit. 98, descr.; Aut. Bot. 132. 1840, nom. erectum Linn. var. flexicaule Raf. Med. Fl. 2:98, 1830, nom. \*\*Mancifolium Raf. Aut. Bot. 132. 1840, descr. Appalachian Mountains, and Alabama to Florida (T. lanceolatum Boykin, 1879: T. recurvatum Beck, var. ? lanceolatum maculatum Raf. 1.c., nom. orbiculatum Raf. 1.c., nom.; Aut. Bot. 1.c., nom. Kentucky. pallidum Raf. Med. Fl. 1.c., nom. latifolium Raf. Med. Fl. 2:97, 101, f. 91. 1830, descr.; Aut. Bot. 135. 1840, nom. Kentucky=T. cernuum Linn. rubricaule Raf. 1.c., nom. undulatum Raf. 1.c., nom.

TRILLIUM (continued).

spatulatum Raf. op. cit. 101, descr. (Trillium purpureum Kin

ex Ell.). Alleghany Mountains—Trillium erectum Linn. \*stenanthes Raf. Aut. Bot. 132. 1840, descr. Arkansas. tinctorium Raf. Med. Fl. 2:98. 1830, descr.; Casket 1832:3. 1832, nom.; Sat. Eve. Post 12(271):[4]. 1832, nom.

Missouri River. \*undulatum Raf. Med. Repos. II. 5:354. 1808, nom.; Jour. Bot. 2:173. 1809, nom.; Med. Fl. 2:100. 1830, descr.; Aut. Bot. 133. 1840, nom. Alleghany Mountains of Pennsylvania. Prob. = Trillium undulatum Willd.

Tunguiculatum Raf. First Cat. Bot. Gard. Transylv. Univ.
16. 1824, nom.; Med. Fl. 2:98. 1830, descr.; Aut. Bot. 132.
1840, nom. (an T. recurvatum Beck?). Indiana, Kentucky, Missouri=Trillium recurvatum Beck (1826).

var. crassicaule Raf. Med. Fl. 2:99. 1830, nom.

maculatum Raf. 1.c., nom. undulatum Raf. 1.c., nom.

TRIMELOPTER Raf. Fl. Tellur. 2:24. 1836 [1837], descr.= Ornithogalum Linn.

fuscatum Raf. 1.c., nom. (Ornithogalum fuscatum Jacq.). South Africa.

\*TRITILLARIA Raf. Am. Monthly Mag. Crit. Rev. 4:192. 1819, nom. sub Lilium pudicum Pursh, sphalm.=Fritillaria Linn.

#TRITRIELA Raf. Fl. Tellur. 3:59. 1836 [1837], nom. nov. provis., nota, subgen. Loncomelos Raf., sub Melomphis patens Raf. (Type Ornithogalum narbonense Linn.)= Ornithogalum Linn.

TROXILANTHES Raf. Aut. Bot. 67. 1840, descr.; Pennell Bull. Torr. Bot. Club 48:93. 1921, nom.=Polygonatum Adans. (1763)

angustifolia Raf. 1.c., descr.; Pennell, 1.c., nom. Belgium=Polygonatum verticillatum (Linn.) All.

\*lanceolata Raf. 1.c., nom. (Convallaria verticillata Linn.). Europe=Polygonatum verticillatum (Linn.) All. \*ramosa Raf. l.c., nom. (Convallaria verticillata Linn.).

Europe=Polygonatum verticillatum (Linn.) All.

TULIPA Linn.

aurea Raf. Atl. Jour. 1:153. 1832, descr.; Fl. Tellur. 2:35.
 1836 [1837], descr. "In Gardens [Philadelphia] from

bicolor Raf. Atl. Jour. 1.c., descr.; Herb. Raf. 26. 1833, nom.; Fl. Tellur. 2:35. 1836 [1837], descr. Arkansas, Texas. laciniata Raf. Fl. Tellur. 1.c., descr. In gardens. †montana Raf. Med. Fl. 2:270. 1830, nom.; Atl. Jour. 1:153. 1833, descr.; Fl. Tellur. 1.c., descr. Alleghany Mountains. pudica Raf. Atl. Jour. 1:153. 1832, descr. (Amblirion pudicum Raf.; Lilium pudicum Pursh). Rocky Mountains or Oregon = Fritillaria pudica (Pursh) Spreng.
unguiculata Raf. Fl. Tellur. 2:35. 1836 [1837], descr.

Caucasus.

TULISTA Raf. Aut. Bot. 137. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:94. 1921, nom.=Haworthia Duval (1809), nom. conserv. (Catevala Medic., 1786).

margaritifera Raf. 1.c., descr. (Aloe margaritifera Burm. f.);
Pennell, 1.c., nom. South Africa=Haworthia margaritifera
(Linn.) Haw.

TULOPHOS Raf. F1. Tellur. 3:71. 1836 [1837], descr. Brodiaea Sm. (1811), nom. conserv. (Hookera Salisb.,

grandiflora Raf. 1.c., descr. (Triteleia grandiflora Lindl. Bot. Reg. 15: sub t. 1293. 1830). Oregon=Brodiaea douglasii S. Wats.

laxa Raf. l.c., descr. (Triteleia laxa Benth.; Lindl. Bot. Reg. 20: t. 1685. 1834). California=Brodiaea laxa (Benth.) S. Wats.

†UVULANA Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818, nom., sphalm.=Uvularia Linn.

angulata Raf. I.c., nom. Alleghany Mountains or Ohio. UVULARIA Linn.

acutifolia Raf. Am. Monthly Mag. Crit. Rev. 1:359. 1817, nom. Pennsylvania (near Philadelphia).

VAGNERA Adans. (1763) = Smilacina Desf. (1807), nom. conserv. (Vagnera Adans., 1763; Tovaria Neck.; 1790, Polygonastrum Moench., 1794). \*angustifolia Raf. Aut. Bot. 68. 1840, descr. New England

to Georgia.

\*retusa Raf. 1.c., descr. Alleghany Mountains. \*stellata Raf. 1.c., nom. in nota [Smilacina stellata Desf.]. Eastern North America.

VERATRUM Linn.

\*dioicum Raf. Med. Fl. 1:39. 1828, iter. Man. Med. Bot. 39. 1841, nom. nov. Veratrum luteum Linn. Eastern North America=Chamaelirium luteum (Linn.) A. Gray.

\*XEROPHYLUM Raf. New Fl. N. Am. 1:26. 1836, nom.= Xerophyllum Michx. (1803). \*YUCA Raf. Fl. Tellur. 1:73. 1836 [1837], nom.=seq.

YUCCA Linn.

\*pumila Raf. Herb. Raf. 40. 1833, nom. Upper Missouri (Mandan country) = Dakota.

\*YUCEA Raf. Fl. Tellur. 1:16. 1836 [1837], nom., sphalm.=

praec. ZIGADENUS Michx.; Raf. Fl. Tellur. 2:30. 1836 [1837], descr. (Zygadinus auct.).

\*angulosus Raf. Western Minerva 41. 1821, nom., iter. Fox, Sci. II. 12:213. 1900. North America.

\*fuscatus Raf. Fl. Tellur. 2:30. 1836 [1837], nom. alt. Gomphostylis fuscatus Raf. Eastern North America.

\*pratensis Raf. First Cat. Bot. Gard. Transylv. Univ. 16.

1824, nom. Kentucky,

#ZIGOTILA Raf. Fl. Tellur. 2:32. 1836 [1837], descr., subgen.
Onixotis Raf. (Type, Melanthium "racemoides," sphalm.
=M. eucomoides Jacq.)=Melanthium Linn.
ZYGADENUS [Zigadenus] Michx.
fuscatus Raf. ex Jacks\*. Ind. Kew. 2:1255. 1895 (Zigadenus fuscatus Raf.). Eastern North America.

# AMARYLLIDACEAE

ABAPHUS Raf. ex Jacks\*. Ind. Kew. 1:1. 1893, sphalm.= Abapus Adans.=Gethyllis Linn.

ABAPUŜ Adans.; Raf. Fl. Tellur. 4:19. 1836 [1838], descr.= Gethyllis Linn.

spiralis Raf. 1.c., descr. (Papiria spiralis Thunb.; Gethyllis afra auct.; Lindl. Bot. Reg. 12: t. 1016. 1826). South Africa=Gethyllis spiralis Linn. f., et quoad Lindl. Bot. Reg., G. afra Linn.

AGAVE Linn. \*arkanzica Raf. Herb. Raf. 63, nom., 64, descr., 1833. Arkansas.

AMARYLLIS Linn.

\*aetnensis Raf. Chloris Aetn. 12. 1815, nom. Sicily=Amaryllis etnensis Raf.=A. citrina Sibth. & Sm. fide Raf. 1.c.=

Sternbergia colchiciflora Waldst. & Kit.

aethnensis Raf. ex Jacks\*. Ind. Kew. 1:101. 1893=praec.
etnensis Raf. Car. Nuov. Gen. Sp. Sicil. 84. t. 18. f. 3. 1810,
descr.; Stat. Gen. Sicil. 28. 1810, nom. Sicily=praec.

AGOLASIA Juss.=Lanaria Ait. (1789).
\*tomentoes Raf. Aut. Ros. 123. 1840, nom. mats (Lathicle

\*tomentosa Raf. Aut. Bot. 123. 1840, nom., nota (Lophiola aurea Ker-Gawl.; Conostylis americana Pursh). New Jersey to Florida=Lophiola aurea Ker-Gawl. ATAMASCO Raf. Neogen. 3. 1825, descr. (Type Amaryllis

atamasca Linn.) = Zephyranthes Herb. (1821) nom. conserv. (Atamosco [Atamosko] Adans., 1763).

AULICA Raf. Fl. Tellur. 4:10. 1836 [1838], descr.=Hippeastrum Herb. (1821).

latifolia Raf. l.c., descr. (Amaryllis aulica Ker-Gawl.; Hook. Bot. Mag. 61: t. 3311. 1834). Brazil=Hippeastrum aulicum

(Ker-Gawl.) Herb. platypetala Raf. 1.c., nom., nota (Amyryllis aulica Ker-Gawl.

var. platypetala Lindi. Bot. Reg. 12: t. 1038, 1827). Brazil. striata Raf. Fl. Tellur. 1.c., descr. (Amyryllis aulica Ker-Gawl. var. glaucophylla Hook. Bot. Mag. 57: t. 2983. 1830). Brazil.

AUROTA Raf. Fl. Tellur. 3:61. 1836 [1837], descr.=Curculigo

Gaertn. (1788) (Molineria Colla, 1826).

latifolia Raf. 1.c., descr. (Curculigo latifolia Ait.; Sims, Bot. Mag. 46: t. 2034. 1819; Ker-Gawl. Bot. Reg. 9: t. 754. 1823).
Tropical Asia=Curculigo capitulata (Lour.) O. Kuntze (C. recurvata Ait., Molineria recurvata Herb., M. capitulata Herb.).

AUTOGENES Raf. Fl. Tellur. 4:20. 1836 [1838], descr.=Nar-

cissus Linn.

angustifolius Raf. 1.c., nom. [Narcissus angustifolius Curt.). Europe.

biflorus Raf. 1.c., nom. [Narcissus biflorus Curt.]. Europe. poeticus Raf. l.c., nom. [Narcissus poeticus Linn.]. Europe. tenuior Raf. l.c., nom. [Narcissus tenuior Curt.]. Europe. BRAXIREON Raf. Fl. Tellur. 4:23. 1836 [1838], descr.=

Tapeinanthus Herb. (1837). humile Raf. 1.c., nom. (Pancratium humile Cav.). Spain, Morocco=Tapeinanthus humilis (Cav.) Herb.

CALATHINUS Raf. Fl. Tellur. 4:21. 1836 [1838], descr.= Narcissus Linn.

cernuus Raf. 1.c., nom. (Narcissus cernuus Salisb.; N. pyrenaicus Pers.; N. triandrus Linn.). Southwestern Europe.

multiflorus Raf. 1.c., nom. (Narcissus calathinus auctt.). Europe.

serotinus Raf. 1.c., nom. (Narcissus calathinus auctt.). Europe.

**CODIAMINUM** Raf. Fl. Tellur. 4:21. 1836 [1838], descr.= Narcissus Linn.

\*minimum Raf. 1.c., nom. (Narcissus bulbocodium Linn.). Spain.

\*montanum Raf. 1.c., nom. (Narcissus bulbocodium Linn.). Spain.

CONANTHERA Ruiz & Pavon.

\*campanula Raf. Fl. Tellur. 3:61. 1836 [1837], nom. sub Cummingia andica Raf. Chile=Conanthera campanulata Lindl.=C. simsii Sweet.

CRINUM Linn.

ceruleum Raf. Atl. Jour. 1:164. 1833, nom. nov. Crinum americanum sensu Pursh. Louisiana = Crinum americanum

CUMMINGIA D. Don=Conanthera Ruiz & Pavon (1802).

andica Raf. Fl. Tellur. 3:61. 1836 [1837], descr. (Conanthera bifolia sensu Sims Bot. Mag. 51: t. 2496. 1824, non Ruiz & Payon; Conanthera campanulata Lindl. Bot. Reg. 14: t. 1193. 1828). Chile=Conanthera simsii Sweet.

DODECASPERMA Raf. Fl. Tellur. 4:35. 1836 [1838], descr.=

Bomarea Mirb. (1804).

acutifolia Raf. 1.c., descr. (Alstroemeria acutifolia Link & Otto, Ic. Pl. Rar. Hort. Bot. Berol. 57. t. 29. 1828-31; Hook. Bot. Mag. 58: t. 3050. 1831). Mexico=Bomarea acutifolia (Link & Otto) Herb.

**EUSARCOPS** Raf. Fl. Tellur. **4:11**. 1836 [1838], descr.= Hippeastrum Herb. (1821).

reticulata Raf. 1.c., descr. (Amaryllis reticulata L'Hérit.; Andr. Bot. Repos. 3: t. 179. 1801; Sims Bot. Mag. 18: t. 657. 1803; Redouté, Lil. 8: t. 424. 1816; Ker-Gawl. Bot. Reg. 5: t. 352. 1819). Brazil=Hippeastrum reticulatum (L'Hérit) Herb.

FURCROYA Raf. Princ. Somiol. 31. 1814, nom. nov. Furcraea

Vent

\*HEMANTHUS Raf. First Cat. Bot. Gard. Transylv. Univ. 21. 1824, nom.; Fl. Tellur. 4:19. 1836 [1838], nom.=Haemanthus Linn.

\*coccineus Raf. First Cat. 1.c., nom.=Haemanthus coccineus Linn. South Africa.

HYMENOCALLIS Herb.

\*driandri Raf. Fl. Tellur. 4:123. 1836 [1838], nom. sub. Troxistemon Raf. Tropical America=Hymenocallis dryandri M. Roem.=H. littoralis Salisb.

HYPOXIS Linn.

\*pilosa Raf. Aut. Bot. 63. 1840, nom. nov. H. erecta Linn. (H. carolinensis Michx.). North America = Hypoxis hirsuta (Linn.) Coville.

var. angustifolia Raf. 1.c., nom. decumbens Raf. 1.c., nom. graminifolia Raf. 1.c., nom. latifolia Raf. l.c., nom. multiflora Raf. 1.c., nom. parviflora Raf. 1.c., nom. striata Raf. 1.c., nom.

JONQUILLA Haworth=Narcissus Linn.

bicolor Raf. Fl. Tellur. 4:21. 1836 [1838], nom. [Narcissus bicolor Linn.]. Europe.

incomparabilis Raf. l.c., nom. [Narcissus incomparabilis Mill.]. Southern Europe.

\*odora Raf. l.c., nom. (Narcissus jonquilla Linn.). Mediter-

ranean region. tazetta Raf. l.c., nom. [Narcissus tazetta Linn.]. Mediter-

ranean region. triloba Raf. I.c., nom. [Narcissus trilobus Linn.]. Mediter-

ranean region.

viridiflora Raf. 1.c., nom. [Narcissus viridiflorus Schousb.]. Mediterranean region.

LATICOMA Raf. Fl. Tellur. 4:12. 1836 [1838], descr. = Nerine Herb. (1820), nom. conserv. (Imhofia Heist., 1753).

compressa Raf. l.c., descr. (Amaryllis laticoma Ker-Gawl. Bot. Reg. 6: t. 497. 1820). South Africa=Nerine lucida Herb.=N. laticoma (Ker-Gawl.) Th. Dur. & Schinz.

LEUCODESMIS Raf. Fl. Tellur. 4:19. 1836 [1838], descr.= Haemanthus Linn.

pubescens Raf. I.c., descr. (Haemanthus pubescens sensu Ker-Gawl. Bot. Reg. 5: t. 382. 1819; H. albiflos Jacq.; Sims, Bot. Mag. 31: t. 1239. 1810). South Africa = Haemanthus albiflos Jacq.

LILAVIA Raf. Fl. Tellur. 4:35. 1836 [1838], descr.=Alstroe-

meria Linn.

psittacina Raf., 1.c., descr. (Alstroemeria psittacina Lehm.; Sweet, Brit. Fl. Gard. 4: t. 15. 1829; Hook. Bot. Mag. 57: t. 3033. 1830). Mexico=Alstroemeria pulchella Linn. f. LIRIAMUS Raf. Fl. Tellur. 4:23. 1836 [1838], descr.=Crinum

Linn.

quinqueflorus Raf. l.c., descr. (Crinum arenarium Herb. Bot. Mag. 52: t. 2531. 1825). Australia = Crinum angustifolium R. Br. (1810), non Linn, f. (1781) = Crinum arenarium

MESOCHLOA Raf. Fl. Tellur. 4:11. 1836 [1838], descr.=
Zephyranthes Herb. (1821), nom. conserv. (Atamosco [Atamosko] Adans., 1763).
canaliculata Raf. 1.c., descr. (Zephyranthes mesochloa Herb.
Bot. Reg. 16: t. 1361. 1830). Argentina.
MOSKERION Raf. Fl. Tellur. 4:21. 1836 [1838], descr.=Narsignus Linu

cissus Linn.

hispanicum Raf., 1.c., nom. (Narcissus hispanicus Gouan). Spain.

moschatum Raf. 1.c., nom. (Narcissus moschatus Linn.). Spain, France.

NARCISSUS Linn.

\*janguilla Raf. Am. Jour. Sci. 1:79. 1818, nom., sphalm.=

Narcissus jonquilla Linn. Europe. \*poculigera Raf. Fl. Tellur. 4:123. 1836 [1838], nom. sub Queltia Salisb. Pyrenees Mountains.=N. poculiformis Salish.

**NEMEPIODON** Raf. Fl. Tellur. 4:22. 1836 [1838], descr.= Hymenocallis Salisb. (1812).

caribeum Raf. l.c., nom. (Pancratium caribaeum sensu Ker-Gawl. Bot. Mag. 21: t. 826. 1805). West Indies=Hymenocallis caribaea Herb.

mexicanum Raf. 1.c., nom. (Hymenocallis mexicana Herb.). Mexico.

speciosum Raf. l.c., nom. (Hymenocallis speciosa Salisb.; Pancratium speciosum Linn. f.; Redouté, Lil. 3:156. t. 156. 1805-07). Tropical America.

NESYNSTYLIS Raf. Fl. Tellur. 4:123. 1836 [1838], descr.=

Strumaria Jacq. (1790).
filifolia Raf. l.c., descr. (Strumaria filifolia Jacq.; Crinum tenellum Linn. f.; Leucojum strumosum Soland.; Ker-Gawl. Bot. Reg. 6: t. 440. 1820). South Africa=Hessea filifolia (Jacq.) Benth. & Hook. f.

undulata Raf. 1.c., nom. (Strumaria undulata Jacq.). South Africa

PANCRATIUM Linn.; Raf. Fl. Tellur. 4:21. 1836 [1838], descr.

liriosme Raf. Fl. Ludovic. 10, nom., 19, descr., 1817 (Pancrais Rob. Voy. Louis. 3:19. 1807); Western Minerva 42. 1821, nom., iter. Fox, Science II. 12:213. 1900; First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom.; Fl. Tellur. 4:21. 1836 [1838], nom. Louisiana.
\*liviosme Raf. Fl. Tellur. 1:16. 1836 [1837], nom., sphalm.=

\*PERIHEMA Raf. Fl. Tellur. 4:20. 1836 [1838], descr.= Haemanthus Linn.

\*coarctata Raf. l.c., descr. (Haemanthus coarctatus Jacq.; Ker-Gawl. Bot. Reg. 3: t. 181. 1817). South Africa.

PERIHEMIA Raf. ex Jacks\*. Ind. Kew. 2:470. 1894=praec. coarctata Raf. ex Jacks\*. l.c.=praec.

PLECTRONEMA Raf. Fl. Tellur. 4:10. 1836 [1838], descr.=

Zephyranthes Herb. (1821), nom. conserv. (Atamosco [Atomosko] Adans., 1763).

candida Raf. 1c. descr. (Zephyranthes candida Herb. Bot.

candida Raf. 1.c., descr. (Zephyranthes candida Herb. Bot. Mag. 53: t. 2607. 1826; Amaryllis candida Lindl. Bot. Reg. 9: t. 724. 1823). Argentina=Zephyranthes candida (Lindl.) Herb.

PLEURASTIS Raf. Fl. Tellur. 4:12. 1836 [1838], nom. nov. provis. (Type Amaryllis radiata L'Hérit=Lycoris radiata Herb.)=Lycoris Herb. (1821).

PLEUROSTIMA Raf. Fl. Tellur. 2:97. 1836 [1837], descr.=

Barbacinia Vent. (1796). purpurea Raf. op. cit. 98, descr., sphalm. "purpurca" (Barbacinia purpurea Hook. Bot. Mag. 54: t. 2777. 1827).

Brazil.

POGONEMA Raf. Fl. Tellur. 4:10. 1836 [1838], descr.=Zephyranthes Herb. (1821), nom. conserv. (Atomosco [Atomosko] Adans., 1763). carinata Raf. 1.c., nom. (Zephyranthes carinata Herb.).

Jamaica.

PRIOPETALON Raf. Fl. Tellur. 4:34. 1836 [1838], descr.= Alstroemeria Linn. pallidum Raf. op. cit. 35, descr. (Alstroemeria pallida Grah.;

Hook. Bot. Mag. 58: t. 3040. 1831). Chile=Alstroemeria ligtu Linn.

SCADIANUS Raf. Atl. Jour. 1:164. 1833, descr.; Fl. Tellur. 4:23. 1836 [1838], descr.=Crinum Linn. multiflorus Raf. Fl. Tellur. 1.c., descr. (Crinum americanum sensu Pursh). Florida, Louisiana, cult. Philadelphia=

Crinum americanum Linn. SCADOXUS Raf. Fl. Tellur. 4:19. 1836 [1838], descr.=

Haemanthus Linn. multiflorus Raf. 1.c., descr. (Haemanthus multiflorus Martyn).

South Africa.

SERENA Raf. Fl. Tellur. 4:20. 1836 [1838], descr.=Haeman-

thus Linn.

carnea Raf. l.c., descr. (Haemanthus carneus Ker-Gawl. Bot. Reg. 6: t. 509. 1821). South Africa.

lancifolia Raf. 1.c., descr. (Haemanthus lanceaefolius Jacq.). South Africa.

SIPHOTOMA Raf. Fl. Tellur. 4:22. 1836 [1838], descr. = Hymenocallis Salisb. (1812).

calathina Raf. 1.c., nom. (Pancratium calathinum Ker-Gawl. Bot. Mag. 38: t. 1561. 1813). South America = Hymenocallis calathina (Ker-Gawl.) Nichols.

STEMONIX Raf. Atl. Jour. 1:165. 1833, descr.=Eurycles

Salisb. (1812).

ex Jacks\*. Ind. Kew. 2:988. 1895 (Crinum nervosus Raf. ervosus Raf. ex Jacks\*. Ind. Kew. 2:988. 1895 (Crinum nervosum L'Hérit.). Indo-Malaysia=Eurycles amboinensis (Linn.) Lindl.

TOMODON Raf. Fl. Tellur. 4:22. 1836 [1838], descr. = Hymeno-

callis Salisb. (1812).

coronarium Raf. 1.c., nom. (Pancratium coronarium Le Conte).
Southeastern United States=Hymenocallis coronaria States=Hymenocallis coronaria Le Conte) Kunth.

floridanum Raf. l.c., nom. nov. Pancratium rotatum sensu Le Conte, non Herb. 1821. Florida (St. Johns River).

pratense Raf. I.c., nom. (Pancratium occidentale Le Conte).
Southeastern United States=Hymenocallis occidentalis States=Hymenocallis occidentalis (Le Conte) Kunth.

riparium Raf. 1.c., nom. (Pancratium mexicanum sensu Le Conte). South Carolina, Georgia=Hymenocallis crassifolia Herb.

rotatum Raf. 1.c., nom. (Pancratium rotatum Ker-Gawl. Bot. Mag. 21: t. 827. 1805). Carolina=Hymenocallis crassifolia Herb.

TRISACARPIS Raf. Fl. Tellur. 4:11. 1836 [1838], descr. =

Hippeastrum Herb. (1821). falcata Raf. 1.c., descr. (Amaryllis calyptrata Ker-Gawl. Bot. Reg. 2: t. 164. 1817). Brazil=Hippeastrum calyptratum (Ker-Gawl.) Herb.

psittacina Raf. l.c., nom. (Amaryllis psittacina Ker-Gawl.). Brazil=Hippeastrum psittacinum (Ker-Gawl.) Herb.

rubra Raf. 1.c., descr. (Amaryllis aulica Ker-Gawl.; Bot. Reg. 6: t. 444. 1820). Brazil=Hippeastrum aulicum (Ker-Gawl.) Herb.

TROXISTEMON Raf. Fl. Tellur. 4:23. 1836 [1838], descr.; op. cit. 123, nom., nota=Hymenocallis Salisb. (1812).

distichus Raf. ex Jacks\*. Ind. Kew. 2:1133. 1895 (Hymenocallis disticha Herb.). Tropical America=Hymenocallis littoralis (Jacq.) Salisb.

dryandri Raf. ex Jacks\*, l.c. (Hymenocallis dryandri Herb.). Tropical America=H. littoralis (Jacq.) Salisb.

fragrans Raf. Fl. Tellur. 4:23. 1836 [1838], nom. [Pancratium fragrans Salisb.]. West Indies=Hymenocallis ovata M. Roem.

littorale Raf. 1.c., nom. [Pancratium littorale Jacq.]. Tropical

America=Hymenocallis littoralis (Jacq.) Salisb.

mexicanus Raf. ex Jacks\*. l.c. (Hymenocallis mexicana
Herb.). Mexico=H. lacera Salisb.

\*ZEPHIRANTHES Raf. Fl. Tellur. 4:11. 1836 [1838], nom. =

Zephyranthes Herb. (1821), nom. conserv. (Atamosco [Atamosko] Adans., 1763).

ZOUCHIA Raf. Fl. Tellur. 4:22. 1836 [1838], descr.=Pancra-

tium Linn. illyrica Raf. 1.c., nom. (Pancratium illyricum Linn.). Europe.

## DIOSCOREACEAE

DIOSCOREA Linn.

thexaphyla Raf. Herb. Raf. 66. 1833, nom.; New Fl. N. Am. 2:89. 1836 [1837], descr. Appalachian Mountains of Virginia. longifolia Raf. New Fl. N. Am. 2:89. 1836 [1837], descr.

Alabama.

†megaptera Raf. Herb. Raf. 63. 1833, nom.; New Fl. N. Am. 2:88. 1836 [1837], descr. Kentucky. †repanda Raf. l.c., nom.; op. cit. 89, descr. Virginia to Ala-

bama.

\*RAYANIA Raf. Aut. Bot. 125. 1840, nom. = Rajania Linn. \*cordata Raf. 1.c., nom. (Rajania cordata Linn.). Cuba.
\*mucronata Raf. 1.c., nom. (Rajania mucronata Willd.). Cuba.

\*quinquenervia Raf. 1.c., descr. Cuba.

\*RAYNIA Raf. Anal. Nat. Tabl. Univ. 199. 1815, nom. nov. Rajania Linn. RHIZEMYS Raf. Fl. Tellur. 4:26. 1836 [1838], descr., nom. nov. Testudinaria Salisb. (1824).

elephantipes Raf. 1.c., descr. (Tamus elephantipes L'Hérit.). South Africa=Testudinaria elephantipes (L'Hérit.) Salisb. montana Raf. I.c., descr. South Africa [Testudinaria montana Buchell; Lindl. Bot. Reg. 11: sub t. 921. 1825] = T. elephantipes (L'Hérit.) Salisb.

\*STEIREXA Raf. Fl. Tellur. 4:100. 1836 [1838], descr., nom.

nov. Trichopus Gaertn. (1788) \*angustifolia Raf. 1.c., descr. [Trichopus zeylanicus Gaertn.]. Cevlon.

\*cordata Raf. 1.c., descr. [Trichopus zeylanicus Gaertn.].

Cevlon.

\*media Raf. 1.c., descr. [Trichopus zeylanicus Gaertn.]. Cey-

STEIREYA Raf. ex Jacks\*. Ind. Kew. 2:983. 1895, sphalm.= Steirexa Raf. (1838)=praec.

angustifolia Raf. ex Jacks\*. l.c.=Trichopus zeylanicus Gaertn.

cordata Raf. ex Jacks\*. l.c.=Trichopus zeylanicus Gaertn. media Raf. ex Jacks\*. l.c.=Trichopus zeylanicus Gaertn.

\*UBIDIUM Raf. Anal. Nat. Tabl. Univ. 199. 1815, nom. nov. Ubium J. F. Gmel. (1791) = Dioscorea Linn.

# IRIDACEAE

ANACTORION Raf. Fl. Tellur. 4:34. 1836 [1838], descr.= Synnotia Sweet (1826)

bicolor Raf. 1.c., nom. (Sparaxis bicolor Ker-Gawl.). South Africa=Synnotia bicolor (Thunb.) Sweet.

galeatum Raf. l.c., nom. (Sparaxis galeata Ker-Gawl.; Gladiolus galeatus Jacq.). South Africa=praec.

\*BELENDENIA Raf. Loud. Gard. Mag. 8:245. 1832, nom. nov. Tritonia Ker-Gawl., iter. Britten, Jour. Bot. 38:226. 1900=Tritonia Ker-Gawl. (1802).

†BELLENDENIA Raf. ex Schlecht. Linnaea 8: Lit.-Ber. 68. 1833, nom.; Endl. Gen. 169. 1837, nom. in syn.=praec.

CROCUS Linn.

\*grandiflorus Raf. Aut. Bot. 124. 1840, descr. Siberia? longiflorus Raf. Car. Nuov. Gen. Sp. Sicil. 84. t. 19. f. 2. 1810, descr.; Stat. Gen. Sicil. 28. 1810, nom.; Chloris Aetn. 12. 1815, nom. Sicily.
\*luzianus Raf. Aut. Bot. 123, nom., sphalm.=Crocus susianus

Ker-Gawl. Asia Minor.

\*suzianus Raf. 1.c., nom. nota, sphalm.=Crocus susianus Ker-Gawl. Asia Minor.

\*vittatus Raf. I.c., descr. Australia. EVELTRIA Raf. Fl. Tellur. 4:30. 1836 [1838], descr.=Orthrosanthus Sweet (1827).

multiflora Raf. Fl. Tellur. 4:30. 1836 [1838], descr. (Orthrosanthus multiflorus Sweet; Sisyrinchium cyaneum Lindl. Bot. Reg. 13: t. 1090. 1827). Australia=Orthrosanthus multiflorus Sweet.

\*EZERIA Raf. Fl. Tellur. 4:51. 1836 [1838], nom., nota, sub Bojeria Raf., nom. nov. Renealmia R. Brown (1810), non Linn., nec Linn. f.=Libertia Spreng. (1825), nom. conserv.

(Tekel Adans., 1763).

GEANTHIA Raf. Med. Repos. II. 5:350. 1808, nom.; Jour. Bot. (Paris) 2:167. 1809, nom.=Crocus Linn.

colchicoides Raf. Il.cc., nom., nota; A. Gray, Am. Jour. Sci. 40:226. 1841, nom. Pennsylvania.

GEANTHUS Raf. Specch. Sci. 1:116. 1814, descr. Ex descr. = Crocus Linn

autumnalis Raf. l.c., descr. Pennsylvania. Ex descr. = Cro-

cus sativus Linn.

\*IRIDIS Raf. Anal. Nat. Tabl. Univ. 198, 222. 1815, nom. nov. Iris Linn.; Fl. Tellur. 1:86. 1836 [1837], nom. = seq.

\*aurea Raf. Atl. Jour. 1:80. 1832, descr.; New Fl. N. Am. 2:93. 1836 [1837], descr. Pennsylvania (Pocono Mountains).

tains).
\*biflora Raf. New Fl. N. Am. 2:92. 1836 [1837], descr.; Aut. Bot. 57. 1840, nom. North Carolina (Unaka Mountains). brevicaulis Raf. Fl. Ludovic. 20. 1817, descr. (Iris blanche Rob. Voy. Louis. 3:20. 1807); Western Minerva 42. 1821, nom., iter. Fox, Science II. 12:213. 1900; First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom.; Atl. Jour. 1:179. 1833, nom.; Herb. Raf. 26, 63. 1833. nom.; New Fl. N. Am. 2:93. 1836 [1837], descr.; Aut. Bot. 57. 1840, nom. Louisiana to western Kentucky.
convoluta Raf. New Fl. N. Am. 2:92. 1836 [1837], descr.; Aut. Bot. 57. 1840, nom. Arkansas, Texas.
\*crocea Raf. Western Rev. Miscel. Mag. 1:93. 1819, nom. Kentucky.

Kentucky.

floridana Raf. New Fl. N. Am. 2:92. 1836 [1837], descr.; Aut. Bot. 57. 1840, nom. Florida, Alabama.

glumacea Raf. New Fl. N. Am. op. cit. 93, descr. Alleghany

var. angustifolia Raf. 1.c., descr. Illinois=Iris pallens Řaf.

\*pallens Raf. 1.c., nom. alt. Iris glumacea Raf. var. angustifolia Raf. Illinois.

rubescens Raf. Fl. Ludovic. 20. 1817, descr. (Iris à fleurs rouge de brique Rob. Voy. Louis. 3:20. 1807); New Fl. N. Am. 2:94. 1836 [1837], nom. in syn. sub. I. fulva Ker-Gawl.). Louisiana=Iris fulva Ker-Gawl. virgata Raf. New Fl. N. Am. 2:92. 1836 [1837], nom. alt.

is biflora Raf.; Aut. Bot. 57. 1840, nom.

IXIA Linn.

\*purpurea Raf. Chloris Aetn. 12. 1815, nom. sub Trichonema purpurascens Raf. Sicily=Ixia purpurascens Tenore=
Romulea purpurascens Tenore.

LIBERTIA Spreng. (1825), nom. conserv. (Tekel Adans., 1763).

\*iridea Raf. Fl. Tellur. 4:10. 1836 [1838], nom. sub Taumastos

Raf. Tierra del Fuego=Libertia formosa Grah.

OLSYNIUM Raf. New Fl. N. Am. 1:72. 1836, descr.; Fl. Tellur. 4:30. 1836 [1838], descr.; op. cit. 50, 51, nom.; Good Book 45. 1840, nom.; New Fl. N. Am. 4:104. 1836

grandiflorum Raf. New Fl. 1:72. 1836; Fl. Tellur. 1.c., descr. (Sisyrinchium grandiflorum Dougl.; Lindl. Bot. Reg. 16: t. 1364. 1830; Hook. Bot. Mag. 63: t. 3509. 1836). Oregon =Sisyrinchium grandiflorum Dougl.=Olysinum douglasii (A. Dietr.) Bickn.

luteum Raf. Fl. Tellur. 4:30. 1836 [1838], descr. (Marica californica Ker-Gawl. Bot. Mag. 25: t. 983. 1807). California=Sisyrinchium californicum Dry=Hydastylis californicus (Ker-Gawl.) Salisb.

**ORTHROSANTHES** Raf. Fl. Tellur. 4:30. 1836 [1838], nom.=

Orthrosanthus Sweet (1827).

ixioides Raf. ex Jacks\*. Ind. Kew. 2:378. 1894 (Sisyrinchium ixioides Forst. f.). New Zealand=Libertia ixioides (Forst. f.) Spreng.

PANEGUIA Raf. Fl. Tellur. 4:34. 1836 [1838], descr. = Sisyrinchium Linn.

palmifolia Raf. 1.c., descr. (Sisyrinchium palmifolium Linn.; Moraea palmifolia Thunb.). South America = Eleutherine

palmifolia (Linn.) Merr. striata Raf. 1.c., descr. (Sisyrinchium striatum Sm. Ic. Pict. Pl. Rar. t. 9. 1790; Redouté, Lil. 2: t. 66. 1804; S. spicatum Cav.; Marica striata Ker-Gawl. Bot. Mag. 19: t. 701, 1804).

South America = Sisyrinchium striatum Sm.

#PASGANON Raf. Fl. Tellur. 4:34. 1836 [1838], descr., subgen. provis. Anactorion Raf. (Type Gladiolus galeatus Jacq.; Sparaxis galeata Ker-Gawl.) = Synnotia Sweet Jacq.; (1826).

PHAIANTHES Raf. Fl. Tellur. 4:30. 1836 [1838], descr.= Moraea Linn. (1762), nom. conserv. (Moraea Mill., 1758). lurida Raf. op. cit. 31, descr. (Moraea lurida Ker-Gawl. Bot. Reg. 4: t. 312. 1818). South Africa.

PHAIOPHLEPS Raf. Fl. Tellur. 4:29. 1836 [1838], descr.=

Symphyostemon Miers (1841).

odoratissima Raf. 1.c., descr. (Sisyrinchium odoratissimum Lindl. Bot. Reg. 15: t. 1283. 1829). Patagonia (Symphy-ostemon odoratissimus (Lindl.) Miers).

POGADELPHIA Raf. Fl. Tellur. 4:29. 1836 [1838], descr.= Sisyrinchium Linn.

graminifolia Raf. op. cit. 30, descr. (Sisyrinchium graminifolium Lindl. Bot. Reg. 13: t. 1067. 1827). Chile.

maculata Raf. op. cit. 29, descr. (Sisyrinchium graminifolium Lindl. var. pumilum Lindl. Bot. Reg. 22: t. 1915, 1836). Chile.

\*SIRYRINCHIUM Raf. New Fl. N. Am. 4:104. 1836 [1838], sphalm.=Sisyrinchium Linn.

SISYRINCHIUM Linn.

albidum Raf. Atl. Jour. 1:17. 1832, descr. Western Kentucky.

(S. versicolor Bickn., 1899).

filiforme Raf. op. cit. 178. 1833, descr.; Herb. Raf. 25. 1833, descr., non Spreng., 1825. Arkansas=S. minus Engl. &

A. Grav.

\*flexuosum Raf. Aut. Bot. 65. 1840, descr. Arkansas, Texas. \*floridanum Raf. op. cit. 66, descr. Florida. \*niveum Raf. 1.c., descr. Alabama, Kentucky = S. albidum Raf.

\*tenuifolium Raf. op. cit. 65, descr., non Humb. & Bonpl., 1809. Arkansas, Texas=S. langloisii Greene. teres Raf. Atl. Jour. 1:148, 1832, descr. Florida, Louisiana. #STENILIS Raf. New Fl. N. Am. 2:92. 1836 [1837], descr.,

subgen. Iris Linn.

\*SYSIRINCHIUM Raf. First Cat. Bot. Gard. Transylv. Univ. 16. 1824, nom. sphalm.=Sisyrinchium Linn.

\*album Raf. l.c., nom. Kentucky=Sisyrinchium albidum Raf.

TAUMASTOS Raf. Fl. Tellur. 4:9. 1836 [1838], descr.=
Libertia Spreng. (1825), nom. conserv. (Tekel Adans., 1763)

compressus Raf. op. cit. 10, descr. (Libertia "iridea" [formosa] Grah.; Hook. Bot. Mag. 61: t. 3294. 1834). Tierra del Fuego=Libertia formosa Grah.

TRICHONEMA Ker-Gawl. (1802)=Romulea Marat. (1772), nom. conserv. (Ilmu Adans., 1763).

\*purpurascens Raf. Chloris Aetn. 12. 1815, nom. (Ixia purpurea "Cyr.," i.e., Ixia purpurascens Ten.). Sicily= Romulea purpurascens Tenore.

#### ZINGIBERACEAE

ACINAX Raf. Fl. Tellur. 4:53. 1836 [1838], descr. sub Zingiber (Type Costus echinatus Pers.)=Amonum Linn.

ALLAGAS Raf. Fl. Tellur. 4:53. 1836 [1838], nom. nov. Hellenia Willd. [Hellenia allughas Willd.] = Alpinia Roxb. (1819), non Linn., nom. conserv (Languas Koenig 1783).

BOJERIA Raf. Fl. Tellur. 4:50. 1836 [1838], descr., non DC. (1836) = Phaeomeria Lindl. (1836).

magnifica Raf. I.c., descr. (Alpinia magnifica Rosc.; Hook. Bot. Mag. 59: t. 3192. 1832). Mauritius=Phaeomeria speciosa (Blume) Koord. (P. magnifica K. Schum.).

DOXANTHES Raf. Fl. Tellur. 4:51. 1836 [1838], nom. alt. Bojeria Raf. (Alpinia magnifica Rosc.) = Phaeomeria Lindl. (1836).

\*GLOBBARIA Raf. Anal. Nat. Tabl. Univ. 197. 1815, nom. nov. [Globba Linn.] = Globba Linn.

SIPHOTRIA Raf. Fl. Tellur. 4:50. 1836 [1838], descr. = Renealmia Linn. f. (1781), nom. conserv. (Alpinia Linn.,

squamosa Raf. 1.c., descr. (Alpinia tubulata Rosc. Bot. Reg.

9: t. 777. 1824). Guiana=Renealmia exaltata Linn. f.

ZEDOARIA Raf. Fl. Tellur. 4:53. 1836 [1838], nom. provis.

(Type, Amonum zedoaria Berg.)=Curcuma Linn.

### CANNACEAE

CANNA Linn.

elegans Raf. Fl. Ludovic. 143. 1817, descr. (Canna angustifolia sensu Pursh; C. glauca sensu Walt.; C. indica sensu Bartr.). Louisiana=Canna flaccida Salisb.

XYPHOSTYLIS Raf. Fl. Tellur. 4:52. 1836 [1838], descr.= Canna Linn.

angustifolia Raf. 1.c., descr. (Canna angustifolia Willd.). Florida, Louisiana.

lutea Raf. 1.c., descr. (Canna flaccida Rosc.). Southeastern United States.

## MARANTACEAE

ENDOCODON Raf. Fl. Tellur. 4:49. 1836 [1838], descr.=
Calathea G. W. F. Mey. (1818).

zebrinum Raf. op. cit. 50, descr. (Maranta zebrina Sims, Bot.
Mag. 44: t. 1926. 1817; Ker-Gawl. Bot. Reg. 5: t. 385.
1819). Brazil=Calathea zebrina (Sims) Lindl.

ILYTHURIA Raf. Fl. Tellur. 4:51. 1836 [1838], descr.=Donax Lour. (1790).

cannaformis Raf. 1.c., descr. (Thalia cannaeformis Forst. f.). Pegu to Polynesia = Donax cannaeformis (Forst. f.) K.

MALACARYA Raf. Am. Monthly Mag. Crit. Rev. 4:190. 1819, nom., nota; Fl. Tellur. 4:52, 1836 [1838], nom. sub Spirostylis biflora Raf.=Thalia Linn.

dealbata Raf. Am. Monthly Mag. 1.c., nom. (Thalia dealbata Fraser). Southeastern United States. MARANTA Linn.

obliqua Raf. Atl. Jour. 1:80. 1832, descr. "Florida or Brazil,"

\*\*obliqua Rat. Atl. Jour. 1830. 1832, descr. \*\*Florida of Brazil, cult. Philadelphia (Bartram's garden).

PSYDARANTA Neck.; Raf. Fl. Tellur. 4:53. 1836 [1838], descr.=Calathea G. W. F. Mey. (1818).

comosa Raf. l.c., descr. (Maranta comosa Linn. f.). South America=Calathea comosa (Linn.) Lindl.

SPIROSTALIS Raf. ex. Jacks\*. Ind. Kew. 2:967. 1895, sphalm.

=seq.
biflora Raf. ex Jacks\*. l.c.=seq.
\*SPIROSTYLIS Raf. Fl. Tellur. 4:51. 1836 [1838], descr.
(Malacarya Raf.)=Thalia Linn.

\*biflora Raf. 1.c., descr. (Thalia dealbata Rosc.). Carolina to Florida.

ZELMIRA Raf. Fl. Tellur. 4:50. 1836 [1838], descr.=Calathea

G. F. W. Mey. (1818). violacea Raf. 1.c., descr. (Calathea violacea Lindl. Bot. Reg. 11: sub. t. 932, 1825, 12: t. 961 [962] 1826). Brazil.

#### BURMANNIACEAE

NEMITIS Raf. Fl. Tellur. 4:33. 1836 [1838], descr., nom. nov. Apteria Nutt.

setacea Raf. I.c., descr., Aut. Bot. 64. 1840, nom. (Apteria setacea Nutt.). Alabama, Florida=Apteria aphylla (Nutt.)

## ORCHIDACEAE 4

ACHROANTHES Raf. Med. Repos II. 5:352. 1808, nom.; Jour. CHROANTHES Raf. Med. Repos II. 5:352. 1808, nom.; Jour. Bot. (Paris) 2:171. 1809, nom.; Am. Monthly Mag. Crit. Rev. 2:268. 1818, nom.; op. cit. 4:195. 1819. nom., nota (Malaxis Soland. ex Sw. subgen. Microstylis Nutt.); Herb. Raf. 73. 1833, nom. (Malaxis Soland. ex Sw., subgen. Microstylis Nutt. 1818); Loud. Gard. Mag. 8:247. 1832, nom. (Malaxis Solander. ex Sw. subgen. Microstylis Nutt.), iter. Schlecht. Linnaea 8: Lit.-Ber. 71. 1833=Microstylis (Nutt.) Eaton, Man. ed. 3, 353. 1822; Lindl. (1826, 1830) = Malaxis Soland. ex Sw. (1788).

acuminata Raf. ex Jacks\*. Ind. Kew. 1:25. 1893 (Microstylis brachypoda A. Gray). New York=Malaxis brachypoda (A. Gray) Fernald, Rhodora 28:176. 1928; 35:242. t. 253. f. 1-4. 1933.

f. 1-4. 1933.

cilifolia Raf. ex Jacks\*. l.c. [Ophrys liliifolia Linn.]. Europe =Liparis liliifolia L. C. Rich.=Malaxis monophyllos

(Linn.) Sw.
laxiflora Raf. ex Jacks\*. l.c. (Acroanthes unifolia Raf.;
Malaxis unifolia Michx.; M. ophioglossoides Muhl.; Microstylis ophioglossoides Nutt.). New York to Carolina=
Microstylis unifolia Britton, Sterns & Poggenb.=Malaxis unifolia Michx.

obtusifolia Raf. ex Jacks\*. 1.c. (Acroanthes obtusifolia Raf.).

Alabama, Georgia=Malaxis unifolia Michx.
unifolia Raf. Med. Repos. II. 5:352. 1808, nom.; Jour. Bot.
(Paris) 2:171. 1809, nom. (Malaxis unifolia Michx.);
A. Gray, Am. Jour. Sci. 40:228. 1841, nom.; North
America=Microstylis unifolia Britton, Sterns & Poggenb.= Malaxis unifolia Michx.

\*ACHROANTHUS Raf. ex Britten, Jour. Bot. 38:227. 1900, nom. (Malaxis Soland. ex Sw., subgen. Microstylis Nutt. 1818) = Achroanthes Raf., 1808=praec.

ACROANTHES Raf. Jour. Phys. Chim. Hist. Nat. 89:261. 1819, nom. (Malaxis Soland. ex Sw. subgen. Microstylis Nutt. 1818); New Fl. N. Am. 1:58. 1836, descr. (Malaxis Soland. ex Sw. subgen. Microstylis Nutt. 1818); op. cit. 4:103. 1836 [1838], nom., nota; Fl. Tellur. 3:7. 1836 [1837], nom., nota (Malaxis Soland. ex Sw. subgen. Microstylis Nutt. 1818); op. cit. 4:49. 1836 [1838], nom., nota; Good Book 44, 1840, nom.=praec.

\*acuminata Raf. New Fl. N. Am. 1:59. 1836, descr. (Microstylis brachypoda A. Gray). New York=Achroanthes acuminata Raf.=Malaxis brachypoda (A. Gray) Fernald. \*cilifolia Raf. l.c., descr. (Ophrys "cilifolia" sphalm. [O. lilifolia Linn.]; O. monophyllos Linn.; Malaxis lilifolia Sw.;

Microstylis monophyllos Lindl.). Europe=Malaxis monophyllos (Linn.) Sw.

\*laxiflora Raf. op. cit. 58, descr. (Malaxis unifolia Michx.; M. ophioglossoides Muhl.; Microstylis ophioglossoides Nutt.). New York to Carolina = Achroanthes laxiflora Raf. =Microstylis unifolia Britton, Sterns & Poggenb.=Malaxis unifolia Michx.

\*obtusifolia Raf. 1.c., descr. Alabama, Georgia=Achroanthes

obtusifolia Raf.=seq.

\*unifolia Raf. Med. Repos. II. 5:352. 1808, nom. (Malaxis unifolia Michx.). North America=Achroanthes unifolia Raf.=Microstylis unifolia Britton, Sterns & Poggenb.= Malaxis unifolia Michx.

ADIPE Raf. Fl. Tellur. 2:101. 1836 [1837], descr. = Bifrenaria

Lindl. (1843).

fulva Raf. 1.c., nom. alt. Adipe racemosa Raf. Brazil=seq. racemosa Raf. 1.c., descr. (Maxillaria racemosa Hook. Bot. Mag. 54: t. 2789. 1827). Brazil=Bifrenaria racemosa (Hook.) Lindl.

ADNULA Raf. Fl. Tellur. 2:87. 1836 [1837], descr.=Pelexia Poit. (1818).

petiolaris Raf. 1.c., descr. (Neottia adnaria Raf. [N. adnata Sw.]). West Indies=Pelexia adnata (Sw.) Spreng.

ANISTYLIS Raf. Neogen. 4. 1825, descr.; Herb. Raf. 74. 1833, descr.; Fl. Tellur. 4:48. 1836 [1838], descr.; Loud. Gard. Mag. 8:247. 1832, nom. (Liparis sensu Lindl.), iter. Schlecht. Linnaea 8: Lit.-Ber. 71. 1833, iter. Britten, Jour. Bot. 38: 227. 1900=Liparis L. C. Rich. (1818), nom. conserv.

convallaria Raf. Neogen. 1.c., nom. (Malaxis liliifolia auct. Am.); Fl. Tellur. 1.c., nom. (Malaxis liliifolia auct. Am.). North America = Liparis liliifolia (Linn.) L. C. Rich.

lutea Raf. Il.cc., nonn. (Malaxis correana Barton; M. loeselii auct. Am.). North America=Liparis loeselii (Linn.) L. C. Rich.

ANTHERICLIS Raf. Am. Monthly Mag. Crit. Rev. 4:195. 1819, nom. nov. Tipularia Nutt.; Jour. Phys. Chim. Hist. Nat. 89:261. 1819, nom. (Tipularia Nutt.)=Tipularia Nutt. (1818).

\*ANTHOGAYAS Raf. Fl. Tellur. 4:44. 1836 [1838], sub Hecabe Raf., nom. nov. Gyas Salisb.

APLECTRA Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom. = Aplectrum [Nutt.] Torr. (1826).
elatior Raf. 1.c., nom. (Cymbidium hyemale Muhl.). Kentucky = Aplectrum hyemale (Muhl.) Torr.
\*montana Raf. 1.c., nom. Kentucky. Prob. = praec.
APLECTRUM (Nutt.) Torr. Comp. Fl. North Mid. States 322.

1826 [Corallorhiza Chatel., subgen. Aplectrum Nutt. Gen. 2:197. 1818].

\*crenatum Raf. Herb. Raf. 75. 1833, a Mountains=A. hyemale (Muhl.) Torr. 1833, descr. Appalachian

\*Iutescens Raf. Med. Fl. 1:145. 1828, nom., iter. Man. Med. Bot. 145. 1841; Casket 1830:138. 1830, nom., nota; Herb. Raf. 63, nom., 75, descr., 1833. Western Kentucky=A. hyemale (Muhl.) Torr.

\*unguiculatum Raf. Herb. Raf. 75. 1833, descr. (Corallorrhiza hyemalis sensu Ell.). Carolina=Aplectrum hyemale

(Muhl.) Torr.

BLEPHARIGLOTIS Raf. Fl. Tellur. 2:38. 1836 [1837], descr.= Habenaria Willd. (1805).

albiflora Raf. 1.c., descr. (Orchis blephariglottis Willd.; Habenaria blephariglottis Hook.; Orchis ciliaris Linn., var. alba Michx.). North America=Habenaria blephariglottis (Willd.) Hook.

bicolor Raf. op. cit. 39, descr. New Jersey=praec.

<sup>&</sup>lt;sup>4</sup> The reductions of those species native of North America north of Mexico in general follow Ames, O. An Enumeration of the Orchids of the United States and Canada. i-vii. 1-120. 1924, but unfortunately a very considerable number of Rafinesque binomials and some generic names based on actual United States specimens are not accounted for in that work.

cristata Raf. I.c., descr. (Orchis cristata Michx.). Virginia to

Florida — Habenaria cristata (Michx.) R. Br. flaviflora Raf. 1.c., descr. (Orchis ciliaris Linn.; Habenaria ciliaris R. Br.). North America — Habenaria ciliaris (Linn.)

longicornis Raf. op. cit. 38, descr. Alabama, Louisiana = Habenaria blephariglottis (Willd.) Hook.

BLETIANA Raf. Am. Monthly Mag. Crit. Rev. 2:268. 1818, nom. nov. Bletia R. Br.

#BULBODICTIS Raf. Fl. Tellur. 4:45. 1836 [1838], descr., subgen. Cochleanthes Raf. (Type, Epidendrum fragrans Sw.) = Epidendrum Linn.

CALIPOGON Raf. Atl. Lour. 1:148. 1832, now = Calongrap.

CALIPOGON Raf. Atl. Jour. 1:148. 1832, nom.=Calopogon R. Br. (1813).

\*parviflorus Raf. l.c., descr. Florida, Louisiana = Calopogon barbatus (Walt.) Ames; see Fernald, Rhodora 48:11. 1946. CALOPOGON R. Br.

parviflorus Raf. ex Jacks\*. Ind. Kew. 1:392. 1892 (Calipogon parviflorus Raf.). Florida, Louisiana = praec. CAULARTHRON Raf. Fl. Tellur. 2:40. 1836 [1837], descr.=

Diacrium Benth. (1881) bicornutum Raf. op. cit. 41, descr. (Epidendrum bicornutum Hook. Bot. Mag. 61: t. 3332. 1834). Trinidad=Diacrium

bicornutum (Hook.) Benth.
umbellatum Raf. 1.c., descr. (Epidendrum? stenopetalum
Hook. Bot. Mag. 62: t. 3410. 1835). Jamaica=Epidendrum

stenopetalum Hook.

†CLADORHIZA Raf. Am. Monthly Mag. Crit. Rev. 1:429. 1817, nom. nov. provis. (Cymbidium corallorrhizon sensu Eaton); Med. Fl. 1:145. 1828, nom. (Corallorhiza), iter. Man. Med. Bot. 145. 1841=Corallorhiza Chatelain (1760). \*maculata Raf. Am. Monthly Mag. Crit. Rev. Lc., nom.

North America=Corallorhiza maculata Raf. (1817) (C.

multiflora Nutt., 1823).

COCHLEANTHES Raf. Fl. Tellur. 4:45. 1836 [1838], descr.= Zygopetalum Hook. (1827).

fragrans Raf. 1.c., descr. (Zygopetalum cochleare Lindl. Bot. Reg. 22: t. 1857. 1836). Trinidad.

COILOSTYLIS Raf. Fl. Tellur. 4:37. 1836 [1838], descr.= Epidendrum Linn.

emarginata Raf. l.c., descr. (Epidendrum ciliare Linn.; Curtis Bot. Mag. 13: t. 463. 1799; E. cuspidatum Lodd. Bot. Cab. 1: t. 10. 1818; Ker-Gawl. Bot. Reg. 10: t. 783. 1824). West Indies=Epidendrum ciliare Linn.
obtusifolia Raf. 1.c., descr. (Epidendrum lineare Jacq.).

West Indies=Isochilus linearis (Jacq.) R. Br.

COLAX Lindl. ex Spreng.

grandiflorus Raf. Fl. Tellur. 2:85. 1836 [1837], in obs., nom. nov. provis. Colax harrisoniae Lindl. South America = Bifrenaria harrisoniae (Hook.) Reichb. f.

harisoni Raf. I.c., descr. (Colax harrisoniae Lindl.; Dendro-bium harrisoniae Hook. Exot. Fl. 2; t. 120. 1825; Maxillaria harrisoniae Lindl. Bot. Reg. 11: t. 897. 1825; Hook. Bot. Mag. 56: t. 2927 1829). South America = Bifrenaria harrisoniae (Hook.) Reichb. f.

\*CORALORHIZA Raf. Am. Monthly Mag. Crit. Rev. 2:119.
1817, nom.=Corallorhiza Chatelain (1760) (Corallorrhiza R. Br.).

\*maculata Raf. 1.c., descr.; Fl. Ludovic. 170. 1817, nom. Long Island=Corallorhiza maculata Raf. (C. multiflora Nutt., 1832)

\*montana Raf. Herb. Raf. 67. 1833, nom. Cumberland Mountains.

CORALLORHIZA Chatelain; Raf. Am. Monthly Mag. Crit. Rev.

2:268. 1818, nom., nota (Corallorrhiza R. Br.). \*montana Raf. Herb. Raf. 75. 1833, descr. Wasioto Mountains=C. odontorhiza (Willd.) Nutt.; see Fernald, Rhodora 48:12. 1946.

\*unguiculata Raf. op. cit. 63, nom., 75, descr. 1833. Western

Kentucky. Prob. = praec.

CORDULA Raf. Fl. Tellur. 4:46. 1836 [1838], descr.; cf. Rolfe, Orchid Rev. 20:2. 1912=Paphiopedilum Pfitz. (1886),

nom. conserv. (Cordula Raf., 1838; Stimegas Raf., 1838). insignis Raf. I.c., descr. (Cypripedium insigne Wall. ex Hook. Exot. Fl. 1:34. t. 34. 1823; Lodd. Bot. Cab. 14: t. 1321. 1828; Hook. Bot. Mag. 62: t. 3412. 1835). Nepal=Paphiopedium insigne (Wall.) Pfitz. (Paphiopedium insigne Kerch.)

CRIOSANTHES Raf. Am. Monthly Mag. Crit. Rev. 2:268 1818, nom. (Cypripedium arietinum Ait.); op. cit. 4:195. 1819, nom. (Cypripedium arietinum Ait.); Jour. Phys. Chim. Hist. Nat. 89:102. 1819, descr. (Cypripedium arietinum

Ait.); Isis von Oken 1820, 1: Lit. Anz. 240. 1820, descr. (Cypripedium arietinum Ait.); Herb. Raf. 43, 44. 1833, nom.; Fl. Tellur. 4:45. 1836 [1838], nom., nota; op. cit. 46, descr.=Arietinum Beck (1833)=Cypripedium Linn. borealis Raf. Am. Monthly Mag. Crit. Rev. 2:268. 1818, nom. nov. Cypripedium arietinum Ait. (Arietinum americanum Beck. 1833).

camm Beck, 1833; Criosanthes arietinum House, 1905). Eastern North America = Cypripedium arietinum Ait. parviflora Raf. Fl. Tellur. 4:46. 1836 [1838], descr. (Arietinum

americanum Beck; Cypripedium arietinum Ait.). Canada,

Vermont=pracc.
CUCULINA Raf. Fl. Tellur. 4:49. 1836 [1838], nom. nov. Monacanthus Lindl. (1832) = Catasetum Rich. (1822).

CYMBIDIUM Sw.

\*corallorhizon Eaton, Man. 98. 1817, descr.; Raf. Am. Monthly Mag. Crit. Rev. 1:429. 1817, nom. [Cymbidium corallor-rhiza Sw.]. Europe, North America—Corallorhiza trifida Chatelain.

CYPRIPEDIUM Linn.

\*assurgens Raf. Herb. Raf. 76. 1833, descr. Wasioto (Cumberland) Mountains.

\*aureum Raf. l.c., descr. Wasioto (Cumberland) Mountains. bifidum Raf. Atl. Jour. 1:178. 1833, descr.: Herb. Raf. 25.

bifidum Raf. Atl. Jour. 1:178. 1833, descr.; Herb. Raf. 25. 1833, descr. Arkansas=C. parviflorum Salisb.

\*catesbianum Raf. Herb. Raf. 44. 1833, descr. ("Calceolus, Catesby, 2 tab. 103"). Canada=C. acaule Ait.

\*furcatum Raf. op. cit. 76, descr. Tennessee.

\*gibbosum Raf. Herb. 43. 1833, nom. alt. C. bifidum Raf. 1.c. Arkansas=C. parviflorum Salisb.

†luteum Raf. Med. Fl. 1:140. t. 30. 1828, descr., iter. Man. Med. Bot. 140. t. 30. 1841; Herb. Raf. 43. 1833, nom., sphalm. "lateum." Eastern North America=C. parviflorum Salisb. Salisb.

var. angustifolium Raf. Med. Fl. 1:142. 1828, descr., iter. Man. Med. Bot. 142. 1841. biflorum Raf. 11.cc., descr.

concolor Raf. Il.cc., descr. glabrum Raf. Il.cc., descr. grandiflorum Raf. Il.cc., descr. maculatum Raf. 11.cc., descr. parviflorum Raf. 11.cc., descr.

pubescens Raf. Il.cc., descr. \*truncatum Raf. Herb. Raf. 43. 1833, descr.; Life of Travels 104. 1836, nom. Appalachian Mountains of Virginia.=C. parviflorum Salisb. var. pubescens (Willd.) Knight. \*undatum Raf. Herb. Raf. 77. 1833, descr. Appalachian

Mountains.

\*vittatum Raf. op. cit. 43, descr. (Calceolus Catesby, Nat. Hist. Carol. 2:72, 73. t. 72, 73. 1743) = C. parviflorum Salisb. var. pubescens (Willd.) Knight.

var. planum Raf. op. cit. 44, descr. (Helleborine Catesby, op. cit. t. 72). Pennsylvania. tortile Raf. 1.c., descr. (Calceolus marianus glaber Catesby, op. cit. t. 72 [73]). Pennsylvania to Carolina.

DENDROBIUM Sw. (1799) nom. conserv. (Callista Lour.,

1790; Ceraia Lour., 1790).

\*emulum Raf. Fl. Tellur. 2:95. 1836 [1837], nom.=Dendrobium aemulum R. Br. Australia.

DEPPIA Raf. Fl. Tellur. 2:51. 1836 [1837], descr.=Lycaste

Lindl. (1843).

mexicana Raf. l.c., descr. (Maxillaria deppii Lodd. Bot. Cab. 17: t. 1612. 1830; Hook. Bot. Mag. 62: t. 3395. 1835). Mexico=Lycaste deppii (Lodd.) Lindl. DICROPHYLA Raf. Fl. Tellur. 4:39. 1836 [1838], descr.= Haemaria Lindl. (1826).

elegans Raf. 1.c., descr. (Goodyera discolor Ker-Gawl. Bot. Reg. 4: t. 271. 1818). "Brazil" [Southeastern China] = Haemaria discolor (Ker-Gawl.) Lindl.

DIDOTHION Raf. Fl. Tellur. 4:39. 1836 [1838], descr.=

Epidendrum Linn.

clavatum Raf. 1.c., descr. (Epidendrum clavatum Lindl. Bot. Reg. 22: t. 1870. 1836, non Koenig). Tropical America =

Epidendrum purpurascens Focke.

DIGOMPHOTIS Raf. Fl. Tellur. 2:37. 1836 [1837], descr.=
Habenaria Willd. (1805).

cordata Raf. 1.c., descr. (Habenaria cordata R. Br.; Hook. Bot. Misc. 1: t. 55. 1830; Hook. Bot. Mag. 59: t. 3164. 1832). Portugal=Satyrium diphyllum Link.

undulata Raf. 1.c., descr. (Habenaria goodyeroides D. Don; Hook. Bot. Mag. 62: t. 3397. 1835). India=Habenaria goodyeroides D. Don, et quoad Bot. Mag. t. 3397, H. wightii Trimen.

**DILOMILIS** Raf. Fl. Tellur. 4: 43. 1836 [1838], descr.=Octadesmia Benth. (1881).

serrata Raf. 1.c., descr. (Octomeria serratifolia Hook. Bot. Mag. 55: t. 2823. 1828). Brazil=Octadesmia serratifolia (Hook.) Benth.

\*DIOTHILOPHIS Raf. ex. Schlecht, Orch. 190. 1914, nom. in

syn., sphalm.=Dothilophis Raf.=Epidendrum Linn.

DIPHRYLLUM Raf. Med. Repos. II. 5:357. 1808, descr.; Jour.

Bot. (Paris) 1:220. 1809, descr.; Am. Monthly Mag. Crit.

Rev. 2:173, 268. 1818, nom.; op. cit. 4:195. 1819, nom.;

Jour. Phys. Chim. Hist. Nat. 89:261. 1819, nom., nota;

Herb. Raf. 74. 1833, nom., nota; Fl. Tellur. 4:48. 1836

[1833], nom., nota, ut subgen. Anistylis Raf.=Listera

R. Br. (1813), nom. conserve (Dibbrallum Raf. 1808)

R. Br. (1813), nom. conserv. (Diphryllum Raf., 1808). bifolium Raf. Med. Repos. II. 5:357. 1808, descr.; Jour. Bot. (Paris) 1:220. 1809, descr.; Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom. New Jersey, Pennsylvania—Listera bifolia (Raf.) Jacks\*. Ind. Kew. 1:769. 1893, sub Diphryllum Raf. An Listera australis Lindl.? (1840).

\*\*PIPHYLLUM Raf. Herb. Raf. 73. 1833, nom., nota=Diphryllum Raf.=Listera R. Br. (1813), nom conserv.

DIPLANTHERA Raf. Herb. Raf. 73. 1833, nom., nota sub Criosanthes Raf. (Platanthera L. C. Rich.), non Thouars (1806), nec Banks & Solander (1810)=Platanthera L. C. Rich. (1818)=Habenaria Willd. (1805).

DIPLECTRADEN Raf. Fl. Tellur. 2:90. 1836 [1837], descr.= Habenaria Willd. (1805)

Habenaria Willd. (1805).

Indicated Willie, (1605).

leptoceras Raf. 1.c., descr. (Habenaria leptoceras Hook. Bot. Mag. 54: t. 2726. 1827). South America.

DITEILIS Raf. Herb. Raf. 73. 1833, descr. = Liparis L. C. Rich. (1818), nom. conserv. (Leptorkis Thou., 1809).

nepalensis Raf. 1.c., nom (Liparis bituberculata Lindl.). India. DITUILIS Raf. Fl. Tellur. 4:49. 1836 [1838], descr.=Liparis L. C. Rich. (1818), nom. conserv. (Leptorkis Thou., 1809). nepalensis Raf. l.c., nom. (Liparis bituberculota Lindl.). India.

DITULIMA Raf. Fl. Tellur. 4:41. 1836 [1838], descr. = Dendrobium Sw. (1709), nom. conserv. (Callista Lour., 1790; Ceraia Lour., 1790).

anceps Raf. 1.c., descr. (Dendrobium anceps Sw.; Lindl. Bot. Reg. 15: t. 1239. 1829). Bengal, Pegu.

DOTHILIS Raf. Fl. Tellur. 2:60. 1836 [1837], descr.=Chloraea

Lindl. (1827) (Ulantha Hook. 1830). grandiflora Raf. l.c., descr. (Neottia? grandiflora Hook. Bot. Mag. 57: t. 2956. 1829 (non Neottia grandiflora (Lindl.) Hook. op. cit. 54: t. 2730. 1827). West Indies (Saint

Vincent) = Chloraea ulantha Rolfe. DOTHILOPHIS Raf. Fl. Tellur. 4:39. 1836 [1838], descr.=

Epidendrum Linn.

purpurea Raf. 1.c., descr. (Epidendrum skinneri Batem. ex Lindl. Bot. Reg. 22: t. 1881. 1836). Guatemala.

DOXOSMA Raf. Fl. Tellur. 4:9. 1836 [1838], descr. = Epidendrum Linn.

gracilis Raf. I.c., descr. (Epidendrum gracile Lindl. Bot. Reg. 21: t. 1765. 1835). Bahamas.

**ELTROPLECTRIS** Raf. Fl. Tellur. 2:51. 1836 [1837], descr.=

Pelexia Pit. ex L. C. Rich. (1818).

acuminata Raf. 1c., descr. (Neotita calcarata Sw.; Hook.
Bot. Mag. 62: t. 3403. 1835; Stenorrhynchus calcaratus L.
C. Rich.). West Indies=Pelexia setacea Lindl. (1840), et quoad syn. Sw. et L. C. Rich., P. calcarata (Sw.) Cogn.

ENDEISA Raf. F1. Tellur. 2:52. 1836 [1837], descr.=Dendro-

bium Sw. (1799), nom. conserv. (Callista Lour., 1790; Ceraia Lour., 1790).

flava Raf. 1c., descr. (Dendrobium densiflorum Wall.; Hook. Bot. Mag. 62: t. 3418. 1835). Nepal.

ENOTHREA Raf. Fl. Tellur. 4:43. 1836 [1838], descr.=

Octomeria R. Br. 1813).
graminifolia Raf. op. cit. 44, descr. (Epidendrum graminifolium Linn.; Dendrobium graminifolium Willd.; Octomeria graminifolia R. Br.; Hook. Bot. Mag. 54: t. 2764.
1827). West Indies=Octomeria graminifolia (Linn.) R. Br.

EPIDENDRUM Linn. \*emulum Raf. Fl. Tellur. 4:45. 1836 [1838], nom.=E.

aemulum Lindl.=E. fragrans Sw. Tropical America.
\*lanceanum Raf. Fl. Tellur. 4:41. 1836 [1838], nom. sub. Lophiaris Raf.=Oncidium lanceanum Lindl. Bot. Reg. 22: t. 1887. 1836. Guiana.

EPIPACTIS Adans.

atropurpurea Raf. Car. Nuov. Gen. Sp. Sicil. 87. 1810, descr.; Stat. Gen. Sicil. 28. 1810, nom.; Chloris Aetn. 12. 1815, nom. Sicily=? Cephalanthera rubra L. C. Rich.

\*EPIPACTIS Raf. Fl. Tellur. 2:40. 1836 [1837], nom. sub Plectrurus Raf. (Type Orchis abortiva Linn.), non Sw., nec Adans.=Limodorum L. C. Rich. 1818, nom. conserv., non Limodorum Linn. 1753 (Centrosis Sw., 1829; Ionorchis G. Beck, 1890; Lesquetia Bubani, 1901).

ERIOXANTHA Raf. Loud. Gard. Mag. 8:247. 1832, nom. nov. Eria Lindl., iter. Schlecht. Linnaea 8: Lit.-Ber. 71. 1833,

iter. Britten, Jour. Bot. 38:227. 1900 = Eria Lindl. (1825), nom. conserv. (Pinalia Buch.-Ham., 1825).

EXERIA Raf. Fl. Tellur. 4:49. 1836 [1838], nom. nov. Eria Lindl. (1825), nom. conserv. (Pinalia Buch.-Ham., 1825).

EXOPHYA Raf. Fl. Tellur. 2:63. 1836 [1837], descr.=Epidendrum Linn.

fuscata Raf. 1.c., descr. (Encyclia patens Hook. Bot. Mag. 57: t. 3013. 1830). Brazil=Epidendrum odoratissimum Lindl.

FROSCULA Raf. Fl. Tellur. 4:44. 1836 [1838], descr.=Dendrobium Sw. (1799), nom. conserv. (Callista Lour., 1790; Ceraia Lour., 1790).

hispida Raf. 1.c., descr. (Dendrobium longicornu Lindl. Bot. Reg. 16: t. 1315. 1830). Nepal.

GALEARIS Raf. Herb. Raf. 71. 1833, descr.; Fl. Tellur. 2:39. 1836 [1837], descr.=Cypripedium Linn. (Galeorchis Rydb., 1901).

biflora Raf. Herb. Raf. 72. 1833, descr.; Fl. Tellur. 1.c., nom. Alleghany Mountains, Pennsylvania = Cypripedium spectabile Salisb. vel C. reginae Walt. (1788). var. uniflora Raf. 1.c., descr., nom.

spectabilis Raf. 11.cc., descr., nom. (Orchis spectabilis Linn.). Kentucky, Ohio=Cypripedium spectabile (Linn.) Salisb. (Galeorchis spectabilis Rydb.).

GAMARIA Raf. Fl. Tellur. 4:49. 1836 [1838], nom., nota= Disa Berg. (1767).

cornuta Raf. ex Jacks\*. Ind. Kew. 1:997. 1893, nom. (Disa cornuta Sw.). South Africa.

GEOBINA Raf. Fl. Tellur. 4:49. 1836 [1838] sub Acroanthes, nom. nov. Georchis Lindl. = Goodyera R. Br. (1813).

\*GIROSTACHYS Raf. Fl. Tellur. 2:87. 1836 [1837], nom.= Gyrostachys Pers. (1807)=Spiranthes L. C. Rich. (1818), nom. conserv. (Gyrostachys Pers., 1807; Ibidium Salisb., 1812).

GOODYERA Brown (1813), nom. conserv. (Epipactis

Boehm., 1760; Peramium Salisb., 1812). \*oblongifolia Raf. Herb. Raf. 76, 1833, descr. Rocky Moun-

tains or Oregon. (Spiranthes decipiens Hook., 1839; Good-yera menziesii Lindl., 1840; G. decipiens F. T. Hubb., 1923); see Fernald, Rhodora 48:11. 1946.

GYNIZODON Raf. Fl. Tellur. 4:40. 1836 [1838], descr. = Miltonia Lindl. (1837), nom. conserv. (Gynizodon Raf., 1838).

russelianum Raf. I.c., descr. (Oncidium russellianum Lindl. Bot. Reg. 22: t. 1830. 1836). Brazil=Miltonia russelliana Lindl.

HABENARIA Willd.

\*claytoni Raf. Herb. Raf. 74. 1833, descr. Kentucky. crocea Raf. Atl. Jour. 1:119. 1832, nom. alt. Orchis crocea Raf.; Herb. Raf. 74. 1833, descr. Maryland (near Baltimore).

\*glaresa Raf. Atl. Jour. 1:150. 1832, sphalm., nom. alt. Orchis glareosa Raf. Western Kentucky=Habenaria flava (Linn.) R. Br.

\*glareola Raf. Herb. Raf. 74. 1833, nom., sphalm. [Orchis glareosa Raf.]. Western Kentucky=Habenaria flava glareosa Raf.]. (Linn.) R. Br.

\*maritima Raf. Herb. Raf. 74. 1833, descr. Sea islands of New Jersey=Habenaria clavellata (Michx.) Spreng.; see Fernald, Rhodora 48:10. 1946.

racemosa Raf. Ann. Nat. Ann. Synop. 15. 1820, descr. New

York, near Fishkill. HECABE Raf. Fl. Tellur. 4:44. 1836 [1838], descr.=Phaius Lour. (1790).

Iutea Raf. 1.c., descr. (Bletia woodfordii Hook. Bot. Mag. 54: t. 2719. 1827). Trinidad (cult.) = Phaius woodfordii (Hook.) Merr. Jour. Arnold Arb. 29:211. 1948 (Phaius maculata Lindl.).

HEXALECTRIS Raf. Neogen. 4. 1825, descr.; Fl. Tellur. 4:48. 1836 [1838], descr.

†aphylla Raf. ex S. Wats. & Coult. in A. Gray, Manual, ed. 6, 501. 1890. (Arethusa spicata Walt.; Bletia aphylla Nutt.). Eastern North America=Hexalectris spicata (Walt.) Barnh.

squamosa Raf. Fl. Tellur. 4:48. 1836 [1838], descr. (Arethusa spicata Walt.; Bletia aphylla Nutt.). Florida=praec. \*HEXALETRIS Raf. Herb. Raf. 74. 1833, nom., sphalm.=

**IEBINE** Raf. Fl. Tellur. 4:39. 1836 [1838], descr.=Liparis L. C. Rich. (1818), nom. conserv. (Leptorkis Thou., 1809). nervosa Raf. 1.c., descr. (Ophrys nervosa Thunb.). Japan = Liparis nervosa (Thunb.) Lindl.

†ISOTRIA Raf. Med. Repos. II. 3:422. 1806, nom.; op. cit. II. 5:357. 1808, descr.; Jour. Bot. (Paris) 1:220. 1809, descr.; Am. Monthly Mag. Crit. Rev. 2:286. 1818, nom.; Jour. Phys. Chim. Hist. Nat. 89:261. 1819, nom., nota; Herb. Raf. 72. 1833, nom., nota; Fl. Tellur. 4:47. 1836 [1838], descr. medeoloides Raf. Fl. Tellur. 4:47. 1836 [1837], descr. (Arethyse medeoloides Purpl.)

thusa medeoloides Pursh). New Jersey=Isotria verticillata

(Muhl.) Raf. (Pogonia verticillata Nutt.).

verticillata Raf. Med. Repos. II. 3:422. 1806, nom.; op. cit. II. 5:357. 1808, descr.; Jour. Bot. (Paris) 1:220. 1809, descr.; Fl. Tellur. 4:47. 1836 [1838], descr. (Arethusa et Pogonia auct.); Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom. Pennsylvania (Pogonia verticillata Nutt.).

**JENSOA** Raf. Fl. Tellur. 4:38. 1836 [1838], descr. = Cymbidium

Sw. (1799).

ensata Raf. 1.c., descr. (Epidendrum ensifolium Linn.; Limodorum ensatum Thunb.). Japan=Cymbidium ensifolium (Linn.) Sw.

JIMENSIA Raf. Fl. Tellur. 4:38. 1836 [1838], descr. = Bletilla Reichb. f. (1851-53).

nervosa Raf. 1.c., descr. (Limodorum striatum Thunb.).

Japan=Bletilla striata (Thunb.) Reichb. f.

LARNANDRA Raf. Neogen. 4. 1825, descr.; Herb. Raf. 74.
1833, nom.; Fl. Tellur. 2:40. 1836 [1837], descr.=Amphiglottis Salisb. (1812) = Epidendrum Linn.

conopsea Raf. Fl. Tellur. 2:40. 1836 [1837], descr. (Epidendrum conopseum R. Br.; Hook. Bot. Mag. 62: t. 3457. 1835). Southeastern United States = Epidendrum conopseum

R. Br. (Amphiglottis conopsea Small). magnolia Raf. ex Jacks\*. Ind. Kew. 2:31. 1894 (Epidendrum magnoliae Muhl.). Carolina = Epidendrum conopseum R. Br. LOPHIARIS Raf. Fl. Tellur. 4:40. 1836 [1838] = Oncidium Sw.

(1800).fragrans Raf. op. cit. 41, descr. (Oncidium lanceanum Lindl.

Bot. Reg. 22: t. 1887, 1826). Guiana. LOPHOGLOTIS Raf. Fl. Tellur. 4:49. 1836 [1838], nom. nov. Sophronia Lindl. (1828), non Licht. (1817)=Sophronitis Lindl. (1828).

LYSIMNIA Raf. Fl. Tellur. 4:43. 1836 [1838], descr. = Brassavola R. Br. (1813).

bicolor Raf. 1.c., descr. (Brassavola cordata Lindl. Bot. Reg. 22: t. 1914. 1836). Brazil.

MATURNA Raf. Fl. Tellur. 2:99. 1836 [1837], descr.=Gomesa

R. Br. (1815).
suaveolens Raf. 1.c., descr. (Pleurothallis foliosa Hook. Bot.
Mag. 54: t. 2746. 1827). Brazil=Gomesa foliosa (Hook.) Klotzsch.

MELICLIS Raf. Fl. Tellur. 2:99. 1836 [1837], descr.=Coryanthes Hook. (1831).

speciosa Raf. op. cit. 100, descr. (Gongora speciosa Hook. Bot. Mag. 54: t. 2755, 1827). Brazil=Coryanthes speciosa (Hook.) Hook.

MENADENA Raf. Fl. Tellur. 2:98. 1836 [1837], descr. = Maxillaria Ruiz & Pavon (1794).

Maxillaria Kuiz & Pavon (1/94).

parkeri Raf. op. cit. 99, descr. (Maxillaria parkeri Hook.
Bot. Mag. 54: t. 2729. 1827). Demerara.

MENADENIUM Raf. Fl. Tellur. 4:45. 1836 [1838], nom.
subnud., sub Cochleanthes Raf:=Zygopetalum Hook. (1827).
rostratum Raf. ex Jacks\*. Ind. Kew. 2:205. 1894 (Zygopetalum rostratum Hook. Bot. Mag. 55: t. 2819. 1828).

MENEPHORA Raf. Fl. Tellur. 4:46, 1836 [1838], descr.= Paphiopedilum Pfitz. (1886), nom. conserv. (Cordula Raf.,

1838; Stimegas Raf., 1838). bicolor Raf. I.c., descr. "Borneo and Java, seen alive in gardens.

MESICERA Raf. Neogen. 4. 1825, descr.; Herb. Raf. 72. 1833, descr.; Fl. Tellur. 2:39. 1836 [1837], descr.=Habenaria Willd. (1805).

†michauxi Raf. Herb. Raf. 72. 1833, descr. (Orchis quinqueseta Michx.); Fl. Tellur. 2:39. 1836 [1837], nom. (Orchis quinqueseta Michx.). North America=Habenaria michauxii Nutt.=H. quinqueseta (Michx.) Eaton, Man. ed. 5, 235. 1829; Sw. Adnot. Bot. 46. 1829. quinqueseta Raf. ex Jacks\*. Ind. Kew. 2:217. 1894 (Orchis quinqueseta Michx.). Southeastern United States=praec. †repens Raf. Herb. Raf. et Fl. Tellur. 1l.cc., descr., nom.

(Habenaria repens Nutt.). Southeastern United States=

MESOPTERA Raf. Herb. Raf. 73. 1833, descr., nom. nov. Liparis L. C. Rich.; Fl. Tellur. 4:49. 1836 [1838], nom., nota (Liparis L. C. Rich.) (Type Liparis loeselii L. C. Rich.) = Liparis L. C. Rich. (1818), nom. conserv. (Leptorkis Thou., 1809).

MONUSTES Raf. Fl. Tellur. 2:87. 1836 [1837], descr.= Spiranthes L. C. Rich. (1818), nom. conserv. (Gyrostachys Pers., 1807; Ibidium Salisb., 1812).

australis Raf. 1.c., descr. (Neottia australis R. Br.). A115tralia=Spiranthes australis Lindl.=S. sinensis (Pers.) Ames.

NARICA Raf. Fl. Tellur. 2:87. 1836 [1837], descr. = Spiranthes L. C. Rich. (1818), nom. conserv. (Gyrostachys Pers., 1807; Ibidium Salisb., 1812).

moschata Raf. 1.c., descr. (Neottia acaulis Sm.). Trinidad= Spiranthes acaulis (Sm.) Cogn. (S. picta Lindl.).

NEMURANTHES Raf. Fl. Tellur. 2:61. 1836 [1837], descr.= Habenaria Willd. (1805).

habenaria Raf. op. cit. 62, nom., nota, sub N. longicauda Raf. (Habenaria macroceras Spreng.; Hook. Bot. Mag. 56: f. 2947. 1829). Jamaica = Habenaria macroceratitis Willd. longicauda Raf. op. cit. 61, descr. (Habenaria longicauda Hook. Bot. Mag. 57: t. 2957. 1830). Guiana.

\*NELIS Raf. ex Lindl. Collect. Bot. sub t. 25. 1821, nom.=

Goodyera R. Br. 1813.

\*repens Raf. 1.c. nom. in nota [Neottia repens Linn.] = Goodyera repens (Linn.) R. Br.

NEOTTIA Linn.

\*adnaria Raf. Fl. Tellur. 2:87. 1836 [1837], nom., sub Adnula Raf., sphalm.=N. adnata Sw.=Pelexia adnata (Sw.) Spreng. West Indies.

\*gracilis Raf. Atl. Jour. 1:18. 1832, nom. North America. \*lacera Raf. Fl. Ludovic. 171. 1817, nom.; Am. Monthly Mag. Crit. Rev. 2:206. 1818, descr. New York, near Lake George=Spiranthes lacera (Raf.) Raf. (S. gracilis Beck).

\*montana Raf. Atl. Jour. 1:18. 1832, nom. North America = Spiranthes montana Raf. (S. ovalis Lindl., 1840).

\*plantaginea Raf. Fl. Ludovic. 171. 1817, nom.; Am. Monthly Mag. Crit. Rev. 2:206. 1818, descr. New York, near Fish-kill=Spiranthes lucida (H. H. Eaton) Ames (S. plantaginea Torr., non Lindl.).

\*viridis Hook. Bot. Mag. 44: sub t. 2730, in nota, 1827; Raf. Fl. Tellur. 2:90. 1836 [1837], nom. sub Synoplectris viridis

Raf. Brazil=Spiranthes acaulis (Sm.) Cogn.

NERISSA Raf. Fl. Tellur. 2:89. 1836 [1837], descr.=Ponthieva R. Br. (1813).

glandulosa Raf., l.c., descr. (Neottia glandulosa Sims, Bot. Mag. 22: t. 842. 1805). West Indies = Ponthieva glandulosa (Sims) R. Br.

\*NYCHOSMA Raf. ex Schlecht. Orch. 190. 1914, nom. in syn., sphalm. = seq.

NYCTOSMA Raf. Fl. Tellur. 2:9. 1836 [1837], descr. = Epidendrum Linn.

nocturna Raf. 1.c., descr. (Epidendrum nocturnum Jacq.: Hook. Bot. Mag. 61: t. 3298. 1834). West Indies, Florida?

ODONECTIS Raf. Med. Repos. II. 5:357. 1808, descr.; Jour. Bot. (Paris) 1:221. 1809, descr.; Am. Monthly Mag. Crit. Rev. 2:173. 268. 1818, nom.; Jour. Phys. Chim. Hist. Nat. 89:261. 1819, nom.; Herb. Raf. 73. 1833, nom., nota; Fl. Tellur. 4:48. 1836 [1838], descr.=Isotria Raf. (1806, 1808).

verticillata Raf. Med. Repos. 1.c., descr.; Jour. Bot. (Paris), l.c. descr.; Fl. Tellur. l.c., descr.; Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom. (Arethusa verticillata Muhl. ex Willd.; A. medeoloides Pursh). Alleghany Mountains = Isotria verticillata (Muhl.) Raf. (Pogonia verticillata Nutt.).

OLGASIS Raf. Fl. Tellur. 2:51. 1836 [1837], descr.=Oncidium Sw. (1800).

triquetra Raf. 1.c., descr. (Cymbidium triquetrum Sw.; Oncidium triquetrum R. Br.; Hook. Bot. Mag. 62: t. 3393. 1835). Jamaica.

ONKERIPUS Raf. Fl. Tellur. 4:42. 1836 [1838], descr.= Xylobium Lindl. (1825).

pallidus Raf. 1.c., descr. (Maxillaria pallidiflora Hook. Bot. Mag. 55: t. 2806. 1828). West Indies (Saint Vincent)= Xylobium pallidiflorum (Hook.) Nichols.

OPHRYS Linn.

\*cilifolia Raf. New Fl. N. Am. 1:59. 1836, nom. in syn. sub Acroanthes cilifolia Raf., sphalm. (O. liliifolia Linn.) Europe=Liparis liliifolia (Linn.) L. C. Rich.

\*estivalis Raf. Med. Repos. III. 2:333. 1811, nom. Eastern United States=O. aestivalis Michx.=? Spiranthes praecox

(Walt.) S. Wats.

pallida Raf. Car. Nuov. Gen. Sp. Sicil. 87. 1810, descr.; Stat. Gen. Sicil. 28. 1810, nom.; Chloris Aetn. 12. 1815, nom. Sicily.

ORCHIS Linn.

bipunctata Raf. Précis Découv. Somiol. 43. 1814, descr.; Jour. Bot. (Desv.) 4:272. 1814, descr. Sicily

crocea Raf. Atl. Jour. 1:119. 1832, descr. Maryland, near Baltimore.

\*fragrans Raf. Med. Fl. 2:248. 1830, nom.; Herb. Raf. 71. 1833, nom. sub Tulotis fragrans Raf. New York. glareosa Raf. Atl. Jour. 1:150. 1832, descr. Illinois and western Kentucky = Habenaria flava (Linn.) R. Br.

†hyemalis Raf. Am. Monthly Mag. Crit. Rev. 1:440. 1817,

descr.; Fl. Ludovic. 169. 1817, nom. Sicily.
\*macrophylla Raf. Atl. Jour. 1:151. 1832, nom. [Habenaria macrophylla Goldie]. North America=Habenaria macrophylla Goldie.

\*nivea Raf. Med. Repos. II. 5:354. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. Eastern United States. Prob.= Habenaria nivea (Nutt.) Spreng.

picta Raf. Il.cc., nom. Eastern United States. \*repens Raf. Neogen. 4. 1825, nom. sub Mecicera Raf. [Habenaria repens Nutt.]. Eastern United States=Habenaria repens Nutt.

\*rotundifolia Raf. Atl. Jour. 1:151. 1832, descr. Saint Lawrence River near Lake Ontario=Orchis rotundifolia

Banks

ORMOSTEMA Raf. Fl. Tellur. 4:38. 1836 [1838], descr.= Dendrobium Sw. (1799), nom. conserv. (Callista Lour., 1790; Ceraia Lour., 1790).

albiflora Raf. 1.c., descr. (Epidendrum monile Thunb.). =Dendrobium monile (Thunb.) Kränzl=Dendrobium

moniliforme (Linn.) Sw.

purpurea Raf. I.c., descr. (Epidendrum moniliforme Linn.; Dendrobium moniliforme sensu Lindl. Bot. Reg. 16: t. 1314. 1830, excl. syn. Sw.). China=D. linawianum Reich. f., et quoad syn. Linn.=praec.

ORXERA Raf. Fl. Tellur. 4:37. 1836 [1838], descr.=Aerides

Lour. (1790).

cornuta Raf. l.c., descr. (Aerides cornutum Roxb.; Lindl. Bot. Reg. 18: t. 1485, 1832). India=Aerides odoratum Lour. PANSTREPIS Raf. Fl. Tellur. 4:41. 1836 [1838], descr.=

Coryanthes Hook. (1831).

paradoxa Raf. l.c., descr. (Gongora macrantha Hook. Bot. Miscel. 2:151. t. 80. 1831; Coryanthes macrantha Hook. Bot. Mag. 58: t. 3102. 1831; Lindl. Bot. Reg. 22: t. 1841.

1836). Venezuela=Coryanthes macrantha Hook. PECTEILIS Raf. Fl. Tellur. 2:37. 1836 [1837], descr.=Hemihabenaria Finet (1901)=Habenaria Willd. (1805).

gigantea Raf. op. cit. 38, descr. (Orchis gigantea Sm. Exot. Bot. 2:79, t. 100, 1805; Habenaria gigantea D. Don; Hook. Bot. Mag. 62: t. 3374, 1835). India=Habenaria susannae (Linn.) R. Br.

radiata Raf. I.c., descr. (Orchis radiata Pers.; Orchis susannae sensu Thunb.). Japan=Habenaria radiata (Pers.)

Spreng.

susanna Raf. 1.c., descr. (Orchis susannae Linn.) [Flos susannae Rumph. Herb. Amb. 5:286. t. 99. 1747]. Ambonia=

Habenaria susannae (Linn.) R. Br. PENTULOPS Raf. Fl. Tellur. 4:42. 1836 [1838], descr.= Xylobium Lindl. (1825)

discolor Raf. l.c., descr. (Maxillaria decolor Lindl. Bot. Reg. 18: t. 1549. 1832). Jamaica=Xylobium palmifolium (Sw.)

PIERARDIA Raf. Fl. Tellur. 4:41. 1836 [1838], descr., non Pierardia Roxb. (1814, 1832) = Dendrobium Sw. (1799), nom. conserv. (Callista Lour., 1790; Ceraia Lour., 1790).

bicolor Raf. 1.c., descr. (Dendrobium pierardi Roxb.; Lodd. Bot. Cab. 8: t. 750. 1823; Hook. Bot. Mag. 52: t. 2584. 1825). Bengal.

PLECTRELMINTHES Raf. Fl. Tellur. 4:42. 1836 [1838],

descr.=Angraecum Bory (1804). bicolor Raf. l.c., descr. (Angraecum caudatum Lindl. Bot. Reg. 22: t. 1844. 1836). West Africa.

PLECTRURUS Raf. Neogen. 4. 1825, descr.; Fl. Tellur. 2: 40. 1836 [1837], descr.=Tipularia Nutt. (1818). discolor Raf. ex Jacks\*. Ind. Kew. 2:561. 1894 (Orchis discolor Pursh; Tipularia discolor Nutt.). North America=

Tipularia discolor (Pursh) Nutt.
\*PLECTURUS Raf. Herb. Raf. 73. 1833, nom., sphalm.=praec.

POGONIA Juss.

\*ophioglonosoides Raf. Herb. Raf. 73. 1833, nom., sphalm.= P. ophioglossoides (Linn.) Ker-Gawl. North America. #POMOPLIS Raf. Fl. Tellur. 2:40. 1836 [1837], descr., sub-

gen. Orchis Linn.

PSYCHILIS Raf. Fl. Tellur. 4:40. 1836 [1838], descr.=Epidendrum Linn.

amena Raf. 1.c., descr. (Epidendrum bifidum Aubl.; Lindl. Bot. Reg. 22: t. 1879. 1836). Guiana.

PSYCHOPSIS Raf. Fl. Tellur. 4:40. 1836 [1838], descr.=

Oncidium Sw. (1800). picta Raf. l.c., descr. (Oncidium papilio Lindl. Bot. Reg. 11: t. 910. 1825; Hook. Bot. Mag. 55: t. 2795. 1828). Trinidad. #RHIZARINA Raf. Fl. Tellur. 2:40. 1836 [1837], descr., sub-

gen. Orchis Linn. SACODON Raf. Fl. Tellur. 4:45. 1836 [1838], descr.=Cypri-

pedium Linn.

macranthon Raf. ex Jacks\*. Ind. Kew. 2:775. 1895 (Cypri-pedium macranthon Sw.; Hook. Bot. Mag. 56: t. 2938. 1829). Siberia.

ventricosum Raf. ex Jacks\*. 1.c. (Cypripedium ventricosum Sw.; Sweet Brit. Fl. Gard. 4: t. 1. 1829). Russia, Siberia =

C. macranthon Sw. var. ventricosum (Sw.) Reichb. f.

SACOILA Raf. Fl. Tellur. 2:86. 1836 [1837], descr. = Stenorrhynchus L. C. Rich. (1818) (Stenorynchus).

lurida Raf. 1.c., descr. (Neottia aphylla Hook. Bot. Mag. 55:
t. 2797. 1828). Trinidad=Stenorrhynchus aphyllus (Hook.) Lind1.

SATYRIUM Linn.

venosum Raf. Med. Repos. II. 5:361. 1808, descr.; Jour. Bot. (Paris) 1:231. 1809, descr. New Jersey and Pennsylvania to Delaware, Maryland and Virginia=Tussaca secunda Raf. fide Raf. Précis Découv. Somiol. 43. 1814=Goodyera pubescens (Willd.) R. Br.

SPIRANTHES L. C. Rich. (1818), nom. conserv. (Gyrostachys Pers., 1807; Ibidium Salisb., 1812). \*bicolor Raf. Fl. Tellur. 2:89. 1836 [1837], nom. nov. provis. Spiranthes parviflora Lindl. India=Spiranthes sinensis (Pers.) Ames.

\*brevicaulis Raf. Herb. Raf. 45. 1833, descr. Kentucky \*estivalis Raf. Fl. Tellur. 2:88. 1836 [1837], nom. [North America 1.

\*flexuosa Raf. Herb. Raf. 45. 1833, descr. Appalachian Mountains.

glauca Raf. Fl. Tellur. 2:88. 1836 [1837], descr. Southern

\*lacera (Raf.) Raf. Herb. Raf. 44. 1833, descr. (Neottia lacera Raf.; N. gracilis sensu Beck). Near Lake Champlain.

lacera Rat.; N. gracuts sensu Beck). Near Lake Champlain. (Neottia gracilis Beck var. B secunda Bigelow, Fl. Bost. ed. 2, 322. 1824); see Fernald, Rhodora 48:5. 1946.

laxiflora Raf. Fl. Tellur. 2:88. 1836 [1837], descr. (Neottia tortilis Sm.). China=Spiranthes tortilis (Sm.) L. C. Rich. \*moutana Raf. Herb. Raf. 45. 1833, descr. Cumberland Mountains. (S. ovalis Lindl., 1840; S. parviflora Ames, 1905); see Fernald, Rhodora 48:5. 1946.

\*nauciflora Raf. op. cit. 52. nom. 76. descr. Rocky Mountains.

\*pauciflora Raf. op. cit. 52, nom., 76, descr. Rocky Mountains

or Oregon.

\*petiolaris Raf. op. cit. 45, descr. Illinois. \*plantaginea Raf. op. cit. 44, descr. (Neottia plantaginea Raf.) New York=Spiranthes lucida (H. H. Eaton) Ames (S.

\*\*sibirica Raf. Fl. Tellur. 2:88. 1836 [1837], descr. Siberia.

\*tuberosa (Raf.) Raf. Herb. Raf. 45. 1833, descr. New Jersey.

(S. beckii Lindl., 1840; S. grayii Ames, 1904); see Fernald,
Rhodora 48:6. 1946; Ames, Bot. Mus. Leafl. Harvard Univ. 13:17-30, t. 1-3. 1947

STENOPOLEN Raf. Fl. Tellur. 4:49. 1836 [1838], sub Achroanthes Raf., nom. nov. Stenia Lindl.

STIMEGAS Raf. Fl. Tellur. 4:45. 1836 [1838], descr. = Paphi-

opedilum Pfitz. (1886), nom. conserv. (Paphiopedilum Pfitz, 1886; Cordula Raf., 1838; Stimegas Raf., 1838). venustum Raf. op. cit. 46, descr. (Cypripedium venustum Wall.; Sims, Bot. Mag. 47: t. 2129. 1820; Ker-Gawl. Bot. Reg. 10: t. 788. 1824). Nepal=Paphiopedilum venustum (Wall.) Pfitz.

STRATEUMA Raf. Fl. Tellur. 2:89. 1836 [1837], descr.= Zeuxine (Zeuxina Lindl.) (1826), nom. conserv. (Adenostylis Bl., 1825, non Cass., 1826).

zeylanica Raf. I.c., descr. (Orchis strateumatica Linn.). Cey-

lon=Zeuxine strateumatica (Linn.). Schltr.

SULPITIA Raf. Fl. Tellur. 4:37. 1836 [1838], descr.=Epidendrum Linn.

odorata Raf. l.c., descr. (Epidendrum odoratissimum Lindl. Bot. Reg. 17: t. 1415. 1831; Encyclia patens Hook. Bot. Mag. 57: t. 3013. 1830). Brazil=Epidendrum odoratissimum Lindl.

SYNADENA Raf. Fl. Tellur. 4:9. 1836 [1838], descr. = Phalaenopsis Blume (1825).

amabilis Raf. 1.c., descr. (Epidendrum amabile Linn.: Angraecum album majus Rumph. Herb. Amb. 6:95. t. 43. 1750). Moluccas=Phalaenopsis amabilis (Linn.) Blume; see Merrill, Interpret. Rumph. Herb. Amb. 177. 1917.

SYNOPLECTRIS Raf. Fl. Tellur. 2:89. 1836 [1837], descr.= Spiranthes Rich. (1818), nom. conserv. (Gyrostachys Pers.,

1807; Ibidium Salisb., 1812).

picta Raf. op. cit. 90, descr. (Neottia picta Sims; Spiranthes picta Lindl.). South America=Spiranthes acaulis (Sm.) Cogn.

viridis Raf. 1.c., descr. (Spiranthes grandiflora Lindl. Bot. Reg. 12: t. 1043. Feb. 1827; Neottia grandiflora Hook. Bot. Mag. 54: t. 2730. 1827; Neottia \*viridis Hook. op. cit. in nota). Brazil=Spiranthes acaulis (Sm.) Cogn.

#TEPHROSANTHOS Raf. Fl. Tellur. 2:40. 1836 [1837], descr.,

subgen. Orchis Linn.

THELYPOGON Spreng. (1826) = Telipogon H.B.K. (1815).

\*angustifolius Raf. Fl. Tellur. 2:17. 1836 [1837], nom., nota
(Tradescantia nervosa Linn.). Northern South America= H.B.K.=Telipogon nervosus angustifolius (Linn.) Druce.

THICUANIA Raf. Fl. Tellur. 4:47. 1836 [1838], descr.=Dendrobium Sw. (1799), nom. conserv. (Callista Lour., 1790;

Ceraia Lour., 1790).
moschata Raf. l.c., descr. (Epidendrum moschatum Buch.-Burma=Dendrobium moschatum (Buch.-Ham.)

TOLUMNIA Raf. Fl. Tellur. 2:101. 1836 [1837], descr.=On-

cidium Sw. (1800).

pulchella Raf. l.c., descr. (Oncidium pulchellum Hook. Bot. Mag. 54: t. 2773. 1827). British Guiana.

**TOMOTRIS** Raf. Fl. Tellur. 2:89. 1836 [1837], descr.=Corym-

borchis Thouars (1822).

flava Raf. 1.c., nom. (Neottia flava Sw.; Serapias flava Sw.). West Indies=Corymborchis flava (Sw.) O. Kuntze (Corymbis flava Hemsl.).

polystachya Raf. 1.c., nom. (Neottia polystachya Sw.). West Indies=Tropidia polystachya (Sw.) Ames (Chloidia poly-

stachya Benth.).

TRITELANDRA Raf. Fl. Tellur. 2:85. 1836 [1837], descr.=

Epidendrum Linn.

fuscata Raf. op. cit. 86, descr. (Epidendrum fuscatum Sm.; Lodd. Bot. Cab. 5:472. 1820; Ker-Gawl. Bot. Reg. 1: t. 67. 1815; Hook. Bot. Mag. 55: t. 2844. 1828). West West Indies=Epidendrum anceps Jacq.

TROPILIS Raf. Fl. Tellur. 2:95. 1836 [1837], descr.=Dendrobium Sw. (1799), nom. conserv. (Callista Lour., 1790; Ceraia Lour., 1790).

emula Raf. l.c., descr. (Dendrobium aemulum R. Br.; Hook. Bot. Mag. 54: t. 2906. 1829). Australia.

\*TSOTRIA Raf. Am. Monthly Mag. Crit. Rev. 2:173, 174. 1817, nom., sphalm.=Isotria Raf. (1806).

\*medeoloides Raf. op. cit. 174, nom., nota, sphalm. "medeo-loicles" (Arethusa medeoloides Pursh). Eastern North America=Isotria verticillata (Muhl.) Raf. (Pogonia verticillata Nutt.).

TULEXIS Raf. Fl. Tellur. 4:42. 1836 [1838], descr.=Bras-

savola R. Br. (1813).

bicolor Raf. op. cit. 43, descr. (Brassavola tuberculata Hook.

Bot. Mag. **56**: t. 2878. 1829). Brazil. **TULOTIS** Raf. Herb. Raf. 70. 1833, descr.; Fl. Tellur. 2:37. 1836 [1837], descr.=Perularia Lindl. (1835)=Habenaria Willd. (1805) albiflora Raf. Herb. Raf. 71. 1833, descr. White Mountains

of New Hampshire.

fragrans Raf. l.c., descr. Mattawan Mountains of New York. fuscescens Raf. ex Jacks\*. Ind. Kew. 2:1136. 1895 (Habenaria \*fuscescens Torr. Compend. Fl. N. Mid. States 318. 1826) =

Habenaria flava (Linn.) R. Br. herbiola Raf. Herb. Raf. 71. 1833, descr. (Habenaria herbiola R. Br.). New England and the Alleghany Mountains=Habenaria flava (Linn.) R. Br. (Perularia \*flava Farwell Eleventh Ann. Rep. Com. Parks Detroit 54. 1900; Platanthera flava A. Gray).
parviflora Raf. 1.c., descr. (Orchis fuscescens sensu Ell.).

parvillora Rat. 1.c., aescr. (Orchis Juscescens sensu Ell.).
Carolina=Habenaria flava (Linn.) A. Gray.

TUSSACA Raf. Précis Découv. Somiol. 42. 1814, descr.: Jour.
Bot. (Paris) 4:271, nom., 272, descr. 1814; Am. Monthly
Mag. Crit. Rev. 2:268. 1818, nom., nota (Goodyera R. Br.).
Jour. Phys. Chim. Hist. Nat. 89:261. 1819, nom., nota (Goodyera yera R. Br.); Herb. Raf. 73. 1833, nom., nota (Goodyera R. Br.); Fl. Tellur. 2:87. 1836 [1837], nom., nota (Goodyera R. Br.) = Goodyera R. Br. (1813), nom. conserv. (Epipactis Boehm., 5 1760; Peramium Salisb., 1812). \*oblongifolia Raf. Herb. Raf. 76. 1833, descr., nom. alt. Good-

yera oblongifolia Raf. Rocky Mountains or Oregone-Goodyera oblongifolia (Raf.) Raf. (Goodyera menziesii Lindl., 1840; G. decipiens F. T. Hubb., 1923); see Fernald,

Rhodora 47:11. 1945.
reticulata Raf. Précis Découv. Somiol. 43. 1814, descr. (Satyrium repens sensu Michx.); Jour. Bot. (Paris) 4:271. (Satyrium repens sensu Michx.); Jour. Bot. (Paris) 4:271. 1814, nom. (Satyrium repens sensu Michx.); Med. Fl. 2:224. 1830, nom. in syn. sub Goodyera pubescens R. Br.). North America=Goodyera pubescens (Willd.) R. Br. (Epipactis pubescens A. A. Eaton). secunda Raf. Précis Découv. Somiol. 43. 1814, nom., nota (Satyrium repens Linn.); Jour. Bot. (Paris) 4:272. 1814, nom., nota (Satyrium venosum Raf.; Neottia repens Linn.). Europe=Goodyera repens (Linn.) R. Br. (Epipactis returns repens Linn.).

Europe=Goodyera repens (Linn.) R. Br. (Epipactis repens

Crantz)

\*ULANTHIA Raf. Fl. Tellur. 2:60. 1836 [1837], nom.=Ulantha Hook. (1830) = Chloraea Lindl. 1827).

XARITONIA Raf. Fl. Tellur. 4:9. 1836 [1838], descr. =

Oncidium Sw. (1800).

elegans Raf. 1.c., descr. (Epidendrum tetrapetalum Jacq. Sel. Am. Stirp. t. 142. 1763; Sel. Stirp. Am. Hist. Pict. t. 216. Jamaica=Oncidium guttatum (Linn.) Fawc. & 1780). Rendle

XEILYATHUM Raf. Tellur. 2:62. 1836 [1837), descr.=On-

cidium Sw. (1800).

altissimum Raf. l.c., descr. (Oncidium altissimum Sw.; Hook. Bot. Mag. 57: t. 2990. 1830; Epidendrum altissimum Jacq. Sel. Am. Stirp. t. 141. 1763). West Indies=Oncidium altissimum (Jacq.) Sw.

# Dicotyledoneae

#### PIPERACEAE

AMALAGO Raf. Sylva Tellur. 84. 1838, descr.=Piper Linn. antillana Raf. l.c., nom. (Piper amalago Linn.). West Indies. malamiri Raf. l.c., nom. (Piper malamiris Linn.). India, Cevlon, Java.

BETELA Raf. Sylva Tellur. 85. 1838, nom. nov. provis.=Piper Linn.

mastica Raf. l.c., nom. (Piper betle Linn., sphalm. Raf. "betel") Indo-Malaysia=Piper betle Linn.

CARPUPICA Raf. Sylva Tellur. 85. 1838, nom. nov. provis.= Piper Linn.

odorata Raf. l.c., nom. (Piper carpupija Pers.). Peru=Piper carpunya Ruiz & Pavon.

CHURUMAYA Raf. Sylva Tellur. 85. 1838, nom. nov. provis.= Piper Linn.

arborea Raf. 1.c., nom. (Piper churumaya Ruiz & Pavon). Peru.

CUBEBA Raf. Sylva Tellur. 84. 1838, descr., non Cubeba Raf. op. cit. 165=Piper Linn.

officinalis Raf. 1.c., nom. (Piper cubeba Linn.). India.

<sup>5</sup> Epipactis Boehm. (1760) is antedated by Epipactis Zinn (1757) and the latter is conserved against Serapias Linn., p.p. (1753), Helleborine Mill., p.p. (1754), Helleborine Hill (1756), and Amesia A. Nels. (1913), a generic group distinct from Goodvera R. Br.

GONISTUM Raf. Sylva Tellur. 85. 1838, descr. = Piper Linn. unguiculatum Raf. l.c., nom. (Piper unguiculatum Ruiz & Payon, Fl. Peruv. 1:34. t. 37. 1798). Peru.

LEPIANTHES Raf. Sylva Tellur. 84. 1838, descr.=Piper Linn.

granulata Raf. op. cit. 85, nom. (Piper "granulatum" sphalm. [P. granulosum Ruiz & Pavon]. Peru. maculosa Raf. l.c., nom. (Piper maculosum Hill). South

umbellata Raf. 1.c., nom. (Piper umbellatum Linn.). Pan-

tropic. peltata Raf. 1.c., nom. (Piper peltatum Linn.). Tropical America.

METHYSTICUM Raf. Sylva Tellur. 85. 1838, nom.=Piper

esculentum Raf. 1.c., nom. [Piper methysticum Forst. f.]. Polynesia=Piper methysticum Forst. f. (P. esculentum Farwell, Drug. Circ. **61**:230. 1917); see Moore, Bishop Mus. Occ. Pap. **10**(19):1-8. 1934.

OXODIUM Raf. Sylva Tellur. 85. 1838, descr.=Piper Linn. callosum Raf. I.c., nom. (Piper callosum Ruiz & Pavon).

PIPER Linn. \*betel Raf. Sylva Tellur. 85. 1838, nom., sphalm.=Piper betle Linn. Indo-Malaysia.

\*granulatum Raf. I.c., nom. sub Lepianthes Raf., sphalm.= Piper granulosum Ruiz & Pavon. Peru.

TROXIRUM Raf. Sylva Tellur. 85. 1838, descr.; Aut. Bot. 14.

1840, descr.=Peperomia Ruiz & Pavon (1794). blandum Raf. Sylva Tellur. 1.c., nom. (Piper blandum Jacq.)

Venezuela=Peperomia blanda (Jacq.) H.B.K. filiforme Raf. 1.c., nom. (Piper filiforme Pers.). Peru=

Peperomia filiformis Ruiz & Pavon.
pereskia Raf. 1.c., nom. (Piper pereskiaefolium Jacq.). Venezuela=Peperomia pereskiaefolia (Jacq.) H.B.K.

pulchellum Raf. 1.c., nom. (Piper pulchellum Ait.). Jamaica=

Peperomia pulchella (Ait.) A. Dietr.

quadrifolium Raf. l.c., nom. (Piper quadrifolium Linn.). Tropical America=Peperomia quadrifolia (Linn.) H.B.K. reflexum Raf. l.c., nom. (Piper reflexum Linn. f.). India=Peperomia reflexa (Linn. f.) A. Dietr.

Peperomia trifolia (Linn.) A. Dietr.

\*varians Raf. Aut. Bot. 14. 1840, descr. (Piper verticillatum Linn.). Jamaica=Peperomia verticillata (Linn.) A. Dietr. verticillatum Raf. Sylva Tellur. 85. 1836, nom. (Piper verticillatum Linn.). Jamaica=Peperomia verticillata (Linn.) A. Dietr.

\*villosum Raf. Aut. Bot. 14. 1840, descr. Central America.

# SALICACEAE

#AIGIROS Raf. Alsogr. Am. 42. 1838, descr., sect. Populus Linn. = Populus Linn. sect. Aigeiros Duby. heterophylos Raf. ex Jacks\*. Ind. Kew. 1:66. 1893. (Populus

heterophylla Linn.). Eastern North America.

AMERINA Raf. Alsogr. Am. 15. 1838, descr., non Noronha

(1790), nec DC. (1840) = Salix Linn. balduiniana Raf. op. cit. 16, descr.; Aut. Bot. 76. 1840, nom.

Florida. caroliniana Raf. op. cit. 15. 1836, nom. (Salix caroliniana Michx.). Southeastern United States.

glandulosa Raf. 1.c., nom. (Salix pentandra Linn.). Eurasia. houstoniana Raf. I.c., nom. (Salix houstoniana Pursh). North America=Salix nigra Marsh.

missurica Raf. op. cit. 16, descr.; Aut. Bot. 76. 1840, nom. Missouri.

nigra Raf. op. cit. 15, nom. (Salix nigra Marsh.). Eastern

North America. nom. (Salix tinctoria Sm.). Europe= tinctoria Raf. l.c., Salix meyeriana Rostk.

tomentosa Raf. 1.c., nom. (Salix tomentosa Host.). Eurasia. AMERIX Raf. Am. Monthly Mag. Crit. Rev. 1:439. 1817, descr.=Salix Linn.

ARGORIPS Raf. Alsogr. Am. 13. 1838, descr. = Salix Linn. alba Raf. 1.c., nom. (Salix alba Linn.). Europe. cerulea Raf. 1.c., nom. (Salix caerulea Sm.). Europe=Salix

alba Linn. var. calva F. W. Mey.

BIGGINA Raf. Alsogr. Am. 14. 1838, descr.=Salix Linn. angustata Raf. 1.c., nom. (Salix angustata Pursh). North

argentea Raf. 1.c., nom. (Salix argentea Dum.-Cours.). North America=Salix repens Linn. var. nitida Wendr.

conifera Raf. 1.c., nom. (Salix conifera Wangh.). Europe=? Salix tristis Ait.

CHALEBUS Raf. Am. Monthly Mag. Crit. Rev. 1:439. 1817, descr. = Salix Linn.

DIAMARIPS Raf. Alsogr. Am. 15. 1838, descr.=Salix Linn. croweana Raf. 1.c., nom. (Salix croweana Sm.). Europe=? Salix myrsinifolia Salisb.

rubra Raf. 1.c., nom. (Salix rubra Huds.). Europe.

DIPLIMA Raf. Alsogr. Am. 13. 1838, descr. = Salix Linn. arenaria Raf. 1.c., nom. (Salix arenaria Linn.). Eurasia=? Salix lapponicum Linn.

chrysantha Raf. l.c., nom. (Salix chrysanthos Vahl). Europe= Salix lanata Linn.

lucida Raf. l.c., nom. (Salix lucida Muhl.). North America. stipularis Raf. l.c., nom. (Salix stipularis Sm.). Europe.

stuartiana Raf. 1.c., nom. (Salix stuartiana Sm.). Europe=Salix lapponicum Linn. subsessilis Raf. ex Jacks\*. Ind. Kew. 1:770. 1893, sphalm.6=

Salix lucida Muhl.

viminalis Raf. Alsogr. Am. 1.c., nom. (Salix viminalis Linn.).

weigeliana Raf. l.c., nom. (Salix weigeliana Willd.). Europe= Salix phylicifolia Linn.

DIPLOPIA Raf. Am. Monthly Mag. Crit. Rev. 1:439. 1817, descr.=Salix Linn.

DIPLUSION Raf. Alsogr. Am. 15. 1838, descr.=Salix Linn. cordatum Raf. 1.c., nom. (Salix cordata Muhl.). North America=Salix rigida Muhl.

lucidum Raf. 1.c., nom. (Salix lucida Muhl.). North America. rigidum Raf. l.c., nom. (Salix rigida Muhl.). North America. undulatum Raf. l.c., nom. (Salix undulata Ehrh.). Europe=?
Salix mollissima Ehrh.

DISYNIA Raf. Am. Monthly Mag. Crit. Rev. 1:439. 1817, nom. subnud.=Salix Linn.

MELANIX Raf. Am. Monthly Mag. Crit. Rev. 1:439. 1817. descr.=Salix Linn.

#MONILISTUS Raf. Alsogr. Am. 42. 1838, descr., sect. Popu-

lus Linn. = Populus Linn. sect. Aigeiros Duby.
monilifera Raf. ex Jacks\*. Ind. Kew. 2:267. 1894 (Populus
monilifera Ait.). North America = Populus deltoides Marsh.

NECTOLIS Raf. Alsogr. Am. 15. 1838, descr.=Salix Linn. ambigua Raf. l.c., nom. [Salix ambigua Pursh]. North America—Salix nigra Marsh.

\*hipophefolia Raf. 1.c., nom. [Salix hippophaëfolia Thuill.]. Europe=seq. hippophaëfolia Raf. ex Jacks\*. Ind. Kew. 2:300. 1894=Salix

mollissima Ehrh. \*membracea Raf. 1.c., nom. [Salix membranacea Thuill.].

Europe=seq. membranacea Raf. ex Jacks\*. 1.c. [Salix membranacea

Thuill.]. vitellina Raf. l.c., nom. [Salix vitellina Linn.]. Europe=Salix

alba Linn. var. vitellina Stokes.

NECTOPIX Raf. Alsogr. Am. 14. 1838, descr. = Salix Linn. caprea Raf. l.c., nom. (Salix caprea Linn.). Europe. rhamnifolia Raf. l.c., nom. (Salix rhamnifolia Pallas).

Siberia. sphacelata Raf. 1.c., nom. (Salix sphacelata Willd.). Europe.

NECTUSION Raf. Alsogr. Am. 14. 1838, descr. = Salix Linn. reticulatum Raf. 1.c., nom. (Salix reticulata Linn.). Arctic and boreal regions.

NESTYLIX Raf. Alsogr. Am. 15. 1838, descr. = Salix Linn. amygdalina Raf. 1.c., nom. (Salix amygdalina Linn.). Europe. arborea Raf. l.c., nom. (Salix triandra Linn.). Eurasia=praec. falcata Raf. l.c., nom. (Salix falcata Pursh). North America. hopeana Raf. 1.c., nom. (Salix hoppeana Willd.). Europe= Salix amygdalina Linn.

villarsiana Raf. 1.c., nom. (Salix villarsiana Fluegge). Europe. #OCTIMA Raf. Alsogr. Am. 42. 1838, descr., sect. Populus Linn. (Type Populus canescens Sm.) = Populus Linn.

<sup>&</sup>lt;sup>6</sup> There is no published Salix with such a specific name. Rafinesque's entry is "lucida ov. subsess."; he clearly intended the two abbreviated words as descriptive of his Diplima lucida (Salix lucida Muhl.) "ovario subsessile."

canescens Raf. ex Jacks\*. Ind. Kew. 2:327. 1894 (Populus

canescens Sm.). England.

OISODIX Raf. Am. Monthly Mag. Crit. Rev. 1:439. 1817, descr.; Alsogr. Am. 13. 1838, descr. = Salix Linn.
decipiens Raf. ex Jacks\*. Ind. Kew. 2:335. 1894 (Salix decipiens Hoffm.). Europe=Salix fragilis Linn. var.

decipiens (Hoffm.) Koch. fulva Raf. Alsogr. Am. 16, 1838, descr.; Aut. Bot. 76, nom.

Oregon.

glauca Raf. ex Jacks\*. Ind. Kew. 2:335. 1894 (Salix glauca Linn.). Europe.

holosericea Raf. ex Jacks\*. 1.c. (Salix holosericea Willd.). Europe.

longifolia Raf. ex Jacks\*. 1.c. (Salix longifolia Muhl.). North America=Salix interior Rowlee.

oblongifolia Raf. Alsogr. Am. 16. 1838, descr.; Aut. Bot. 76.

1840, nom. Maine. reticulata Raf. ex Jacks\*. 1.c. (Salix reticulata Linn.). Boreal

regions. serpyllifolia Raf. ex Jacks\*. 1.c. (Salix serpyllifolia Scop.). Europe.

OPODIX Raf. Am. Monthly Mag. Crit. Rev. 1:439. 1817, descr.=Salix Linn.

PLEIARINA Raf. Alsogr. Am. 15. 1838, descr. = Salix Linn. humboldtiana Raf. 1.c., nom. (Salix humboldtiana Willd.). South America.

POPULUS Linn.

bicolor Raf. Alsogr. Am. 42. 1838, descr.: Aut. Bot. 76. 1840, nom. Alleghany Mountains=P. alba Linn.
biformis Raf. Alsogr. Am. 43. 1838, descr. Euphrates River=

Populus euphratica Oliver.

candicans Ait. var. crenata Raf. l.c., descr. North America. ciliolata Raf. l.c., descr.; Aut. Bot. 76. 1840, nom. (Populus graeca sensu Willd.; P. balsamifera auct.). Alleghany Mountains, Ohio. cinerea Raf. Alsogr. Am. op. cit. 42. descr.; Aut. Bot. 1.c.,

nom. Alleghany Mountains.

var. reticulata Raf. Alsogr. Am. 1.c., descr.

reticulata Raf. Alsogr. Am. op. cit. 43, descr.; Aut. Bot. 1.c., nom. Appalachian Mountains.

salicifolia Raf. Alsogr. Am. 1.c., descr. Upper Missouri and Oregon (Lewis & Clark) = Populus angustifolia James.

PSATHERIPS Raf. Alsogr. Am. 15, 1838, descr. = Salix Linn. fragilis Raf. 1.c., nom. (Salix fragilis Linn.). Europe, northern Asia.

RIPSELAXIS Raf. Alsogr. Am. 14. 1838, descr. = Salix Linn. herbacea Raf. 1.c., nom. (Salix herbacea Linn.). Boreal and Arctic regions.

RIPSOCTIS Raf. Alsogr. Am. 15. 1838, descr.=Salix Linn. egyptiaca Raf. 1.c., nom.; Aut. Bot. 6. 1840, nom. (Salix octandra Sieber). Abyssinia.

indica Raf. Alsogr. Am. l.c., nom. (Salix tetrandra Roxb.). India.

SALIX Linn.

\*arborea Raf. Alsogr. Am. 15. 1838, nom. nov. Salix triandra

Linn., sub Nestylix arborea Raf. Europe.

denudata Raf. Fl. Ludovic. 116. 1817, descr. (Saule 1 Rob. Yoy. Louis. 3:321. 1807); Herb. Raf. 55. 1833, nom. Louisiana.

grisea Raf. Med. Repos. II. 5:353. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. Central Atlantic United States. \*hexandra Raf. First Cat. Bot. Gard. Transylv. Univ. 12. 1824,

nom.; Herb. Raf. 38, 56. 1833, nom. Kentucky, Missouri.
\*hopeana Raf. Alsogr. Am. 15. 1838, nom.=Salix hoppeana

Willd. Europe.

hybrida Raf. Med. Repos. II. 5:353. 1808, nom.: Jour. Bot. (Paris) 2:173. 1809, nom. Central Atlantic United States. \*involacea Raf. Alsogr. Am. 14. 1838, nom. alt. Vimen in-

volacea Raf. Hab.?

ludoviciana Raf. Fl. Ludovic. 116. 1817, nom., nota (Saule 2, Rob. Voy. Louis. 3:521. 1807). Louisiana.

\*repanda Raf. Alsogr. Am. 17. 1838, descr.; Aut. Bot. 76. 1840, nom. Florida.

SOKOLOFIA Raf. Alsogr. Am. 14. 1838, descr. = Salix Linn. rupestris Raf. op. cit. 15, nom. (Salix rupestris Donn). Europe=? Salix myrsinifolia Salisb.

#STENALIX Raf. Alsogr. Am. 17. 1838, descr., subgen. Vetrix Raf.; Aut. Bot. 76. 1840, nom. (Type Vetrix

linearifolia Raf.) = Salix Linn.

TELESMIA Raf. Alsogr. Am. 15. 1838, descr. = Salix Linn. hermaphrodita Raf. I.c., nom. [Salix hermaphroditica Linn.]. Europe

#TREMULA Raf. Alsogr. Am. 42. 1838, descr., sect. Populus Linn. =Tremula Dum. (1826), ut gen. =Populus Linn. trepida Raf. ex Jacks\*. Ind. Kew. 2:1100. 1895 (Populus trepida Willd.) =P. tremuloides Michx. North America.

URNECTIS Raf. Alsogr. Am. 14. 1838, descr. = Salix Linn. hirta Raf. I.c., nom. (Salix hirta Sm.). Europe=? Salix myrsinifolia Salisb.

USIONIS Raf. Alsogr. Am. 14. 1838, descr.=Salix Linn. aquatica Raf. I.c., nom. (Salix aquatica Sm.). England=Salix cinerea Linn.

aurita Raf. 1.c. nom. (Salix aurita Linn.). France.

dicksoniana Raf. l.c., nom. (Salix dicksoniana Sm.). England. foliolosa Raf. l.c., nom. (Salix foliolosa Willd.). Europe.

fuscata Raf. l.c., nom. (Salix fuscata Pursh). North America. grisea Raf. l.c., nom. (Salix grisea Willd.). North America = Salix sericea Marsh.

humilis Raf. op. cit. 17, descr. (Salix humilis Marsh.; S. muhlenbergiana auct. Am.; S. tristis auct. Am.; S. incana Michx. ?; S. grisea auct. Am.); Aut. Bot. 76. 1840, nom. Alleghany Mountains = Salix humilis Marsh.

pedicellaris Raf. Alsogr. Am. 14. 1838, nom. (Salix pedicel-

laris Pursh). North America.

petiolaris Raf. 1.c., nom. (Salix petiolaris Sm.). North America.

rosmarinifolia Raf. 1.c., nom. (Salix rosmarinifolia Linn.). Eurasia.

uliginosa Raf. 1.c., nom. (Salix uliginosa Willd.). Eurasia. VETRIX Raf. Am. Monthly Mag. Crit. Rev. 1:439. 1817, descr.; Alsogr. Am. 13. 1838, descr. = Salix Linn.

forbiana Raf. Alsogr. Am. 13. 1838, nom. (Salix forbyana Sm.). Europe=Salix rubra Huds.

†helix Raf. Am. Monthly Mag. Crit. Rev. 1:439. 1817, nom. (Salix helix Linn.); Alsogr. Am. l.c., nom. Europe=Salix

rubra Huds.

lambertiana Raf. Alsogr. Am. 13. 1838, nom. (Salix lambertiana Sm.). Europe.

linearifolia Raf. op. cit. 17, descr.; Aut. Bot. 76. 1840, nom. Missouri.

purpurea Raf. op. cit. 13, nom. (Salix purpurea Linn.). Europe.

†sicula Raf. Am. Monthly Mag. Crit. Rev. 1:439. 1817, descr.; Fl. Ludovic. 168. 1817, nom.; Alsogr. Am. 13. 1838, descr. Sicily.

VIMEN Raf. Am. Monthly Mag. Crit. Rev. 1:439. 1817, descr.; Alsogr. Am. 13. 1838, descr., non P. Browne (1756) = Salix

acuminatum Raf. Alsogr. Am. 14. 1838, nom. (Salix acuminata Mill.). Europe=Salix myrsinifolia Salisb.

andersonianum Raf. 1.c., nom. (Salix andersoniana Sm.). Europe.

bicolor Raf. 1.c., nom. (Salix bicolor Ehrh.). Europe=Salix phylicifolia Linn.

cinerum Raf. I.c., nom. (Salix cinerea Linn.). Europe. cotinifolium Raf. I.c., nom. (Salix cotinifolia Sm.). Europe = Salix myrsinifolia Salisb.

discolor Raf. 1.c., nom. (Salix discolor Muhl.). Eastern North America.

forsterianum Raf. 1.c., nom. (Salix forsteriana Sm.). Europe=Salix myrsinifolia Salisb.

hastatum Raf. l.c., nom. (Salix hastata Linn.). Europe. involuceum Raf. l.c., nom. (Salix involucea Raf., l.c., nom.).

malifolium Raf. 1.c., nom. (Salix malifolia Sm.). Europe= Salix hastata Linn.

muhlenbergianum Raf. l.c., nom. (Salix muhlenbergiana Willd.). Eastern North America = Salix humilis Marsh.

myricoides Raf. 1.c., nom. (Salix myricoides Muhl.). North America.

parvifolium Raf. 1.c., nom. (Salix parvifolia Sm.). Europe= Salix repens Linn. phylicifolium Raf. l.c., nom. (Salix phylicifolia Linn.). Europe.

<sup>&</sup>lt;sup>7</sup> Rafinesque inadvertently lists six names, sub *Oisodix*, as "D. holosericea glauca, serpyllif." etc., the D. possibly being a misprint for S = Salix, or he originally selected a generic name commencing with D was later abandoned without changing the text for the binomials.

VIMEN (continued).

prinoides Raf. 1.c., nom. (Salix prinoides Pursh). North America=Salix discolor Muhl.

prostratum Raf. I.c., nom. (Salix prostrata Sm.). Europe= Salix repens Linn.

pyrenaicum Raf. 1.c., nom. (Salix pyrenaica Gouan). Europe. repens Raf. 1.c., nom. (Salix repens Linn.). Eurasia.

retusum Raf. l.c., nom. (Salix retusa Linn.). Europe. russelianum Raf. l.c., nom. (Salix russelliana Sm.). Europe. silesiacum Raf. 1.c., nom. (Salix silesiaca Willd.). Europe. starkeanum Raf. l.c., nom. (Salix starkeana Willd.). Europe= Salix livida Wahl.

uva-ursi Raf. 1.c., nom. (Salix uva-ursi Pursh). North America.

violaceum Raf. 1.c., nom. (Salix violacea Hall). Europe= Salix acutifolia Willd.

wulfenianum Raf. 1.c., nom. (Salix wulfeniana Forbes). Europe=Salix glabra Scop.

#### MYRICACEAE

#CEROCARPA Raf. Alsogr. Am. 11. 1838, descr., subgen. Cerophora Raf. = Myrica Linn.

CEROPHORA Raf. Alsogr. Am. 11. 1838, descr. (Gale Tourn.), non Cerophora Raf. (1808, 1809, 1814) = Gale Adans. (1763) = Myrica Linn.

angustifolia Raf. Alsogr. Am. 11. 1838, descr. (Myrica gale sensu Michx.). New England to Carolina=Myrica gale Linn. (Angeia palustris Tidestr., 1910).

inodora Raf. 1.c., descr. [Myrica inodora Bartr. Travels 405. 1791, descr.]. Alabama=Myrica inodora Bartr. (Cerothamnus inodorus (Bartr.) Small).

lanceolata Raf. l.c., descr. (Myrica cerifera Linn., var. arborescens Michx.; M. cerifera auct. Am.). Atlantic seashores of North America=Myrica cerifera Linn. (Cerothamnus arborescens Tidestr., 1910).
spicans Raf. op. cit. 12, descr. (Myrica gale auct. nonnul.).

Germany=Myrica gale Linn.

var. rufa Raf. 1.c., descr.

FAYANA Raf. Alsogr. Am. 12. 1838, descr. = Myrica Linn. azorica Raf. l.c., nom. (Myrica faya Ait.). Canary and Azores Islands.

#GALESTIS Raf. Alsogr. Am. 11. 1838, descr., subgen. Cerophora Raf.=Myrica Linn.

MYRICA Linn.

†fuscata Raf. Herb. Raf. 58. 1833, nom.; Alsogr. Am. 9. 1838, descr. Kentucky.

heterophyla Raf. Alsogr. Am. 1.c., descr. Carolina to Florida curtissii Chev.); see Fernald, Rhodora 40:409-410. (M.1938.

pusilla Raf. op. cit. 10, descr. Alabama, Florida (M. pumila Small, 1896); see Fernald, op. cit. 408.

sessilifolia Raf. op. cit. 10, descr. New Jersey to Florida= Myrica heterophylla Raf. var. latifolia Raf. 1c., descr. [Prob.=M. cerifera Linn.

var. media Michx.]. undulata Raf. 1.c., descr. [North America].

verrucosa Raf. op. cit. 9, descr. (Myrica cerifera sensu Sw.). West Indies.

### **JUGLANDACEAE**

\*CORYA Raf. Jour. Phys. Chim. Hist. Nat. 89:260. 1819, nom., sphalm.=Carya Nutt. (1818), nom. conserv. (Scoria Raf., 1808, Hicorius Raf., 1817; Hicoria Raf., 1838).

#DRIMOCARIA Raf. Alsogr. Am. 66. 1838, descr., subgen. Hicoria Raf. (Type Hicoria amara Raf.) = Carya Nutt. (1818), nom. conserv., vide supra.

#GLYCARIA Raf. Alsogr. Am. 66. 1838, descr., subgen. Hi-coria Raf. (Type Hicoria alba Raf.) = Carya Nutt. (1818), nom. conserv., vide supra.

#HEXACARIA Raf. Alsogr. Am. 66. 1838, descr., subgen. Hicoria Raf. (Type Hicoria tomentosa Raf.)=Carya Nutt.

(1818), nom. conserv., vide supra. \*HICARYA Raf. First Cat. Bot. Gard. Transylv. Univ. 12. 1824,

nom.=Carya Nutt. (1818), nom. conserv., vide supra.
\*oliveformis Raf. l.c., nom. Kentucky [Hicorius oliveformis Raf. Fl. Ludovic. 109. 1817; Carya olivaeformis Nutt.].
North America=Carya illinoensis (Wangenh.) K. Koch.

HICORIA Raf. New Fl. N. Am. 1:25. 1836, nom.; Alsogr. Am. 65. 1838, descr. (Carya Nutt.); Good Book 49. 1840, nom.= Carya Nutt. (1818), nom. conserv., vide supra.

\*alba Raf. Alsogr. Am. 66. 1838, nom. [Carya alba Nutt.].
Eastern North America=Carya ovata (Mill.) K. Koch.
\*amara Raf. 1.c., nom. Louisiana=Carya cordiformis

\*amara Raf. l.c., nom. (Wangenh.) K. Koch.

\*aquatica Raf. l.c., nom. [Carya aquatica Nutt.]. Eastern North America=Carya aquatica (Michx. f.) Nutt. \*integrifolia Raf. New Fl. N. Am. 3:95. 1836 [1838], nom.;

Alsogr. Am. 67. 1838, descr. Louisiana=Carya aquatica (Michx. f.) Nutt.

\*maxima Raf. Alsogr. Am. 66, nom., 67, descr., 1838, (Carya tomentosa Nutt. var. maxima Nutt.). Pennsylvania to Carolina = Carya tomentosa (Poir.) Nutt.

\*microcarpa Raf. 1.c., nom. [Carya microcarpa Nutt.]. Eastern North America=Carya ovalis (Wang.) Sarg.

\*myristica Raf. l.c., nom. [Carya myristicaeformis Nutt.].
Southeastern United States=Carya myristicaeformis (Michx. f.) Nutt.

\*porcina Raf. 1.c., nom. [Carya olivaeformis Nutt.]. Eastern

North America = Carya glabra (Mill.) Sweet.

\*scabra Raf. l.c., descr. Alleghany Mountains.

\*sulcata Raf. l.c., nom. [Carya sulcata Nutt.]. Eastern North America = Carya laciniosa (Michx. f.) Loud.

\*tomentosa Raf. l.c., nom. [Carya tomentosa Nutt.]. Eastern North America=Carya tomentosa (Lam.) Nutt.

\*HICORIAS Raf. ex Benth. & Hook. f. Gen. Pl. 3:398. 1880, nom. in syn. = seq.

MICORIUS Raf. Fl. Ludovic. 9, nom., 109, descr. 1817; Am. Monthly Mag. Crit. Rev. 2:268. 1818, nom., nota.; op. cit. 4:195. 1819, nom., nota (Carya Nutt.); Jour. Phys. Chim. Hist. Nat. 89:260. 1819, nom., nota (Carya Nutt.) = Carya Nutt. (1818), nom. conserv., vide supra. alba Raf. ex Jacks\*. Ind. Kew. 1:1149. 1893 (Hicoria alba Raf.). Eastern North America = Carya ovata (Mill.) K Koch

K. Koch

amara Raf. Fl. Ludovic. 109. 1817, descr. (Juglans alba ovata Rob. Voy. Louis. 3:510. 1807; Juglans amara Michx.); op. cit. 142, nom. Eastern North America = Carya cordiformis (Wangenh.) K. Koch.

(Wangenn.) K. Kocn.

aquatica Raf. ex Jacks\*. 1.c. (Hicoria aquatica Raf.). Eastern North America = Carya aquatica (Michx. f.) Nutt.

integrifolia Raf. Fl. Ludovic. 109. 1817, descr. (Noyer pacanier amer. Rob. Voy. Louis. 3:510. 1807); Herb. Raf.
55. 1833, nom.; New Fl. N. Am. 3:95. 1836 [1837], nom.

Louisiana = Carya illinoenisis (Wang.) K. Koch.

maxima Raf. ex Jacks\*. l.c. (Hicoria maxima Raf.; Carya tomentosa Nutt. var. maxima Nutt.). Pennsylvania to Carolina=Carya tomentosa (Poir.) Nutt.

microcarpa Raf. ex Jacks\*. 1.c. (Hicoria microcarpa Raf.). Eastern North America=Carya ovalis (Wang.) Sarg.

myristica Raf. ex Jacks\*. 1.c. (Hicoria myristica Raf.; Carya myristicaeformis Nutt.). Eastern North America=Carya myristicaeformis (Michx. f.) Nutt.

oliveformis Raf. Fl. Ludovic. 109. 1817, nom. sub H. integrifolia Raf. Louisiana=Carya illinoensis (Wangenh.) K. Koch.

porcina Raf. ex Jacks\*. l.c. (Hicoria porcina Raf.)=Carya glabra (Mill.) Sweet.

scabra Raf. ex Jacks\*. 1.c. (Hicoria scabra Raf.). Alleghany Mountains.

sulcata Raf. ex Tacks\*. 1.c. (Hicoria sulcata Raf.). Eastern North America = Carya laciniosa (Michx. f.) Loud.

tomentosa Raf. ex Jacks\*. 1.c. (Hicoria tomentosa Raf.).
Eastern North America=Carya tomentosa (Lam.) Nutt.

\*HICORYA Raf. Med. Fl. 2:134, 228. 1830, nom., nota (Carya Nutt.) = Carya Nutt. (1818), nom. conserv., vide supra.

\*amara Raf. op. cit. 228, nom.=Carya cordiformis (Wang.) K. Koch.

\*aquatica Raf. l.c., nom.=Carya aquatica (Michx. f.) Nutt. \*oblonga Raf. l.c., nom.

\*oliva Raf. 1.c., nom. [Hicoria oliveformis Raf.] = Carya illinoensis (Wangenh.) K. Koch.

\*porcina Raf. 1.c., nom. [Hicoria porcina Raf.] = Carya glabra (Mill.) Sweet.

\*sulcata Raf. 1.c., nom. [Hicoria laciniosa (Michx. f.) Loud.] = Carya laciniosa (Michx. f.) Loud.

#MELANOCARIA Raf. Alsogr. Am. 66. 1838, descr. subgen. Juglans Linn. (Type Juglans nigra Linn.) = Juglans Linn.

#PACANIA Raf. Alsogr. Am. 65. 1838, descr., subgen. Hicoria Raf. (Type Hicoria oliveformis Raf.) = Carya Nutt. (1818), nom. conserv., vide supra, sect. Pacania (Raf.) Rehd.

#PIKERIONARIA Raf. Alsogr. Am. 66. 1838, descr., subgen. Juglans Linn. (Type Juglans cinerea Linn.)=Juglans Linn. SCORIA Raf. Med. Repos. II. 5:352. 1808, nom.; Jour. Bot. (Paris) 2:170. 1809, nom.=Hicoria Raf. (1838)=Carya

Nutt. (1818), nom. conserv., vide supra.

alba Raf. Il.cc., nom. (Juglans alba Linn.); A. Gray, Am. Jour. Sci. 40:228. 1841, nom. Eastern North America= Carya ovata (Mill.) K. Koch.

globosa Raf. 11.cc., nom.; A. Gray 1.c., nom.

mucronata Raf. Il.cc., nom.; A. Gray, l.c., nom. (Juglans mucronata Michx.). Eastern North America = Carya cordiformis (Wangenh.) K. Koch.

pyriformis Raf. Il.cc., nom. [Juglans pyriformis Muhl.];

A. Gray 1.c., nom. Pennsylvania.

tomentosa Raf. 11.cc., nom. (Juglans tomentosa Lam.);
A. Gray, I.c., nom. Eastern North America = Carya tomentosa (Poir.) Nutt.

SCORIAS Raf. ex Endl. Gen. Pl. 1126. 1840, nom. in syn.=

praec.

#### BETULACEAE

ALNUS Linn.

\*tomentosa Raf. Herb. Raf. 57. 1833, nom. Cumberland Mountains.

BETULA Linn.

†aetnensis Raf. Chloris Aetn. 8. 1815, nom.; J. & C. Presl Delic. Prag. 144. 1822. Sicily=B. pendula Roth. ethnensis Raf. ex Regel in DC. Prodr. 16(2):163. 1868, nom.

in syn. sub Betula alba Linn. var. microphylla Regel. Sicily=B. pendula Roth. etnensis Raf. Specch. Sci. 1:17. 1814, descr.: Précis Découv.

Somiol. 1814 (page 4 of cover) nom.; Jour. Bot. Desv. 4:277. 1814, nom. Sicily=B. pendula Roth. rupestris Raf. Western Rev. Miscel. Mag. 1:228. 1819, descr.

Kentucky (Estill County).

\*rupestris Raf. Herb. Raf. 54. 1833, nom.; New Fl. N. Am. 3:95. 1836 [1838], nom. Northwestern United States

(Lewis & Clark).

CARPINUM Raf. Fl. Ludovic. 133, 159, 1817, nom.; Am.
Monthly Mag. Crit. Rev. 2:268. 1818, nom. nov. provis. Carpinus Linn. = seq.

\*americanum Raf. Fl. Ludovic. 133. 1817, nom.; Louisiana =

Carpinus americanus Walt.

CARPINUS Linn.

ostryoides Raf. Med. Repos. III. 2:333. 1811, nom. (C. ostrya sensu Michx.)=C. americanus Walt.

ZUGILUS Raf. Fl. Ludovic. 159. 1817, nom. nov. Ostrya "Linn." [Scop.]; Am. Monthly Mag. Crit. Rev. 2:268. 1818, nom.=Ostrya Scop.

virginicus Raf. Fl. Ludovic. 1.c., nom. (Carpinus ostrya Linn.; Ostrya virginica Willd.). Louisiana=Ostrya virginiana (Mill.) K. Koch.

#### FAGACEAE

#ALBINUS Raf. Alsogr. Am. 18. 1838, descr., subgen. Quer-

ARCAULA Raf. Alsogr. Am. 30. 1838, descr.=Pasania Oerst. (1866) = Quercus Linn. sensu lat.

spicata Raf. 1.c., descr. (Quercus spicata Sm.). Nepal= Pasania spicata Oerst.=Lithocarpus spicata (Sm.) Rehd. &

BALANAULAX Raf. Alsogr. Am. 28. 1838, descr.=Pasania Oerst. (1866) = Quercus Linn. sensu lat.

molucca Raf. ex Jacks\*. Ind. Kew. 1:265. 1893 (Quercus molucca Linn.). Moluccas (Amboina). (Pasania molucca Oerst.)

rumphi Raf. ex Jacks\*. l.c. (Quercus molucca Linn.). Moluccas (Amboina).8

BALANOPLIS Raf. Alsogr. Am. 29. 1838, descr. = Castanopsis

(D. Don) Spach (1842).
serrata Raf. op. cit. 30, descr. (Quercus cuspidata Thunb.).
Japan=Castanopsis cuspidata (Thunb.) Schottky.

8 See Merrill, Interpret. Rumph. Herb. Amb. 186. 1917. The basis of both names is Quercus molucca Rumph. Herb. Amb. 3:85. t. 56. 1743, which in turn is the whole basis of Quercus molucca Linn., spelled "moluca" by Rafinesque. tribuloides Raf. op. cit. 29, descr. (Quercus tribuloides Sm.). Nepal=Castanopsis tribuloides (Sm.) A. DC.

CASTANEA Linn.

americana Raf. Fl. Ludovic. 134. 1817, nom. (Castanea vesca Gaertn. var. americana Pursh); New Fl. N. Am. 3:82. 1836 [1838], descr. (Castanea vesca Gaertn. var. americana Pursh). Canada to Louisiana and Oregon=C. dentata (Marsh.) Borckh.

var. angustifolia Raf. New Fl. N. Am. 1.c., descr.

latifolia Raf. op. cit. 83, descr.

pumila Mill. var. fulva Raf. l.c., descr. Alleghany Mountains. CERRIS Raf. Alsogr. Am. 29. 1838, descr. — Quercus Linn., subgen. Lepidobalanus (Endl.) Oersted, sect. Aegilops (Reichb.) Schwarz.

australis Raf. l.c., nom. nov. Quercus cerris Linn. Europe. austriaca Raf. ex Jacks\*. Ind. Kew. 1:494. 1893 (Quercus austriaca Willd.). Europe.

crinita Raf. ex Jacks\*. l.c. (Quercus crinita Lam.). Europe. dulcis Raf. Alsogr. Am. 29. 1838, descr. Upper Missouri

and Oregon (Lewis & Clark).

macrocarpa Raf. ex Jacks\*. 1.c. (Quercus macrocarpa Michx.).

North America.

microphyla Raf. ex Jacks\*. 1.c. (Quercus microphylla Née). Mexico.

oliveformis Raf. ex Jacks\*. 1.c. (Quercus olivaeformis Michx. f.). North America.

paliphleos Raf. ex Jacks\*. l.c., sphalm. (Quercus haliphlaeos Lam.). Europe.

salicifolia Raf. ex Jacks\*. l.c. (Quercus salicifolia Née). Mexico.

#CUSPIDICUS Raf. Alsogr. Am. 18. 1838, descr., subgen. Ouercus Linn.

#DRYODAPHNIS Raf. Alsogr. Am. 27. 1838, descr. sub Quercus laurina Raf., subgen. provis. Quercus Linn. (Types (Quercus laurina Raf., Q. aprica Raf., Q. verrucosa Raf.) = Quercus Linn.

DRYOPSILA Raf. Alsogr. Am. 25. 1838, descr., "subg.?" Quercus Linn.; Aut. Bot. 144. 1840, nom., subg. Quercus Linn.; Good Book 49. 1840, nom.=Quercus Linn., subgen.

Erythrobalanus Oersted.

aprica Raf. Alsogr. Am. 26. 1838, nom. alt. Quercus aprica Raf.; Aut. Bot. 144. 1840, nom. Tennessee, Kentucky, Illinois, Missouri.

cinerea Raf. Alsogr. Am. 27. 1838, nom. alt. Quercus cinerea Raf.; Aut. Bot. 144. 1840, nom. Florida, Carolina. cuneifolia Raf. 1.c., nom. alt. Quercus cuneifolia Raf.; Aut.

Bot. 144. 1840, nom. Florida.
laurina Raf. l.c., nom. alt. Quercus laurina Raf.; Aut. Bot. 144. 1840, nom. Carolina to Florida.

maritima Raf. 1.c., nom. alt. Quercus maritima Bartr.; Aut.

Bot. 144. 1840, nom. Florida.

Oligodes Raf. op. cit. 28, nom. alt. Quercus oligodes Raf.;
Aut. Bot. 144. 1840, nom. [Florida?].

verrucosa Raf. op. cit. 26. nom. alt. Quercus verrucosa Raf.; Aut. Bot. 144. 1840, nom. Carolina to Louisiana.

var. obliqua Raf. 1.c., nom.; Aut. Bot. 1.c., nom.
virens Raf. op. cit. 28, nom. alt. Quercus virens Raf.; Aut. Bot. 144. 1840, nom. Florida and Louisiana=Q. virginiana Mill.

ERIODRYS Raf. Alsogr. Am. 30. 1838, descr.=Quercus Linn. lanata Raf. l.c., descr. (Quercus lanata Sm.). Nepal. FAGUS Linn.

alba Raf. Fl. Ludovic. 134. 1817, nom. (F. sylvatica auct. Am.); New Fl. N. Am. 3:80. 1836 [1838], descr. (F. sylvatica sensu Pursh). North America=Fagus grandifolia Ehrh.

asplenifolia Raf. New Fl. N. Am. 3:82. 1836 [1838], descr. Europe and Siberia = F. asplenifolia Dum.-Cours. (1811). †heterophyla Raf. op. cit. 80, descr. Alleghany Mountains =

F. grandifolia Ehrh.

rotundifolia Raf. op. cit. 81, descr. North America=seq. rotundifolia Raf. Atl. Jour. 1:177. 1833, descr.; Herb. Raf. 22. 1833, descr.; New Fl. N. Am. 3:81. 1836 [1838], descr. Texas (type), "Arkanzas and Texas, extending to Origon and Siberia, perhaps even to Europe," Raf. New Fl. N. Am. 1c—E grandifolia Flyth var caroliniana (Loud) Fern 1.c.=F. grandifolia Ehrh. var. caroliniana (Loud.) Fern. & Rehd.

sylvatica Linn. var. sanguinea Raf. New Fl. N. Am. 3:81.

1836 [1838], descr. Europe and Siberia. #FINAX Raf. Alsogr. Am. 28. 1838, nom. provis., subgen. Quercus Linn.

#LIMNODRIS Raf. Alsogr. Am. 26. 1838, descr., subgen.

Quercus Linn.=Quercus Linn. subgen. Erythrobalanus

Qersted. (1866); Quercus Linn., sect. Erythrobalanus Spach (1842).

PERYTIS Raf. Alsogr. Am. 29. 1838, descr.=Cyclobalanopsis

Oerst. (1866) = Quercus Linn., sensu lat.

annulata Raf. 1.c., nom. (Quercus annulata Sm.). Asia. concentrica Raf. 1.c., nom. (Quercus concentrica Lour.). Indo-China (Pasania sabulicola Hickel & A. Camus); see Merr. Trans. Am. Philos. Soc. II. 24(2):130. 1935.

giauca Kai. l.c., nom. (Quercus glauca Thunb.). Japan. lamellosa Raf. l.c., nom. (Quercus lamellosa Sm.). Himalayan glauca Raf. 1.c., nom. (Quercus glauca Thunb.).

region.

#PHELLODRYS Raf. Alsogr. Am. 26. 1838, descr. subgen.
Dryopsila Raf. Quercus Linn., subgen. Erythrobalanus
Oersted (1866); Quercus Linn., sect. Erythrobalanos Spach. (1842).

OUERCUS Linn.

acuta Raf. Alsogr. Am. 22. 1838, descr.; Aut. Bot. 143. 1840, nom. Cheroki or Unaka Mountains, North Carolina=Q. coccinea Münch.

\*aesculus Raf. Alsogr. Am. 18. 1838, nom.=Quercus esculus

Linn. Europe.

angulizans Raf. op. cit. 22, descr.; Aut. Bot. 143, 1840, nom. Alabama=? Q. borealis Michx.

aprica Raf. op. cit. 26, descr. Kentucky, Missouri=Q. imbricaria Michx.

aurea Raf. op. cit. 20, descr.; Aut. Bot. 143. 1840, nom. Arkansas, Texas=Q. falcata Michx.

carpinifolia Raf. op. cit. 21, descr.; Aut. Bot. 1.c., nom. Virginia.

†chincapin Raf. op. cit. 18, nom.. 23, descr.; Aut. Bot. 1.c., nom. New Jersey to Carolina = Quercus chinquapin Pursh = Quercus prinoides Willd.

cinerea Raf. op. cit. 27, descr. Carolina, Florida. corticosa Raf. op. cit. 24, descr. Spain, Sicily, Italy.

cuneifolia Raf. op. cit. 27, descr. Florida.
dilatata Raf. op. cit. 24, descr.; Aut. Bot. 144. 1840, nom.
Alleghany and Appalachian Mountains=Q. marilandica Münch.

dispar Raf. op. cit. 19, descr. Europe, near the Rhine River=? Q. petraea Linn.

durinus Raf. 1.c., descr. France=? praec. \*edulis Raf. Med. Fl. 2:255. 1830, nom. North America.

\*ferruginea Raf. Alsogr. Am. 20. 1838, descr.; Aut. Bot. 143. 1840, nom. Georgia, Florida. An Q. ferruginea Michx. f.?

fusca Raf. Alsogr. Am. 19. 1838, descr.; Aut. Bot. 1.c., nom. North America.

gonoloba Raf. op. cit. 25, descr.; Aut. Bot. 144. 1840, nom. Kentucky

granulata Raf. op. cit. 21, descr.; Aut. Bot. 143. 1840, nom.

Arkansas, Texas. heteroloba Raf. op. cit. 25, descr.; Aut. Bot. 144. 1840, nom.

Western Kentucky. heterophyla Raf. op. cit. 24, descr.; Aut. Bot. 1.c., nom. Georgia, Florida; cult. Philadelphia=Quercus heterophylla Michx, f.

ilexoides Raf. op. cit. 23, descr.; Aut. Bot. 144. nom. Florida. \*incana Bartr. Trav. 378. 1791, descr.; Raf. Alsogr. Am. 403. 1838, nom.; Raf. New Fl. N. Am. 3:95. 1836 [1838], nom. Florida (Q. cinerea Michx., 1803).

\*laurina Raf. Alsogr. Am. 27. 1838, descr.; Aut. Bot. 144. 1840, nom. Carolina, Florida=? Q. obtusa (Willd.) Ashe. longifolia Raf. Alsogr. Am. 21. 1838, descr.; Aut. Bot. 143.

1840, nom. Alleghany Mountains.

\*magnolia Raf. op. cit. 18, nom. [Quercus magnoliaefolia Née]. Mexico.

†maritima Bartr. Trav. 164. 1791, descr.; Raf. Alsogr. Am. 27. 1838, descr.; Aut. Bot. 144. 1840, nom. Florida.

\*mollis Raf. Alsogr. Am. 22. 1838, descr.; Aut. Bot. 143. 1840, nom. Pennsylvania. An Quercus mollis Nutt.?

nigrescens Raf. Alsogr. Am. 19. 1838, descr. Europe=? Q. petraea Linn.

nitida Raf. op. cit. 20, descr.; 1.c., nom. Carolina and Florida. oligodes Raf. op. cit. 28, descr.; Aut. Bot. 144. 1840, nom. Florida?

pagoda Raf. op. cit. 23, descr.; Aut. Bot. 1.c., nom. (Quercus falcata Michx., var., Ell.). Carolina=Q. falcata Michx. var. pagodaefolia Ell. (Q. pagodaefolia (Ell.) Ashe).

pandurata Raf. op. cit. 21, descr.; Aut. Bot. 144. 1840, nom. Alabama.

prinoides Raf. op. cit. 22, descr.; Aut. Bot. 143. 1840, nom. New Jersey, Virginia.

\*repanda Raf. op. cit. 19, descr. (Q. alba Linn. var. repanda Michx.). Pennsylvania to Carolina.

retusa Raf. op. cit. 22, descr.; Aut. Bot. 1.c., nom. Alabama. \*smilax Raf. Alsogr. Am. 24. 1838, descr. (Quercus ilex

\*smilax Raf. Alsogr. Am. 24. 1838, descr. (Quercus itex Linn., "var."). North Africa. An Quercus smilax Linn.? suberoides Raf. Med. Repos. II. 5:360. 1808, descr.; Jour. Bot. (Paris) 1:226. 1809, descr.; Alsogr. Am. 23. 1838, descr.; Aut. Bot. 144. 1840, nom. (sphalm. "saberoides"). Delaware and Pennsylvania to Florida.

\*verrucosa Raf. Alsogr. Am. 26. 1838, descr. Carolina to

Louisiana

var. obliqua Raf. 1.c., descr. Florida. versicolor Raf. op. cit. 20, descr.; Aut. Bot. 143. 1840, nom. Carolina to Florida.

\*virens Raf. Med. Fl. 2:255. 1830, nom.; Alsogr. Am. 28.

1838, descr. Florida, Louisiana = Q. virginiana Mill.

SCOLORYS Raf. Alsogr. Am. 29. 1838, descr. = Quercus
Linn., subgen. Lepidobalanus Oersted.

lyrata Raf. I.c., nom. (Quercus lyrata Walt.). Eastern North America.

rigida Raf. 1.c., nom. (Quercus rigida Willd.). Mediterranean region.

#### ULMACEAE

ABELICEA Reichb. (1828) = Zelkova Spach (1841), nom. conserv. (Abelicea Reichb., 1828).

aquatica Raf. New Fl. N. Am. 3:41. 1836 [1838], nom. [Planera aquatica J. F. Gmel.]. North America = Planera aquatica J. F. Gmel.

cretica Raf. l.c., nom. [Planera abelicea Schult.] Crete=Zel-kova cretica Spach (Z. abelicea Boiss.).

sibirica Raf. 1.c., nom. [Planera crenata Desf.]. Caucasus= Zelkova crenata Spach.

CELTIS Linn. Rob. Voy. Louis. 3:359. 1807); First Cat. Bot. Gard. Transylv. Univ. 12. 1824, nom.; Herb. Raf. 55. 1833, nom.; New Fl. N. Am. 3:32. 1836 [1838], descr. (Celtis integrifolia auct. Am., var.). Missouri, Arkansas, Louisiana, Texas=C. laevigata Willd.

canina Raf. Am. Monthly Mag. Crit. Rev. 2:43. 1817, descr.; Fl. Ludovic. 169. 1817, nom.; Herb. Raf. 56. 1833, nom.; New Fl. N. Am. 3:31. 1836 [1838], descr. New York (Fishkill, Newburgh, etc.) = C. occidentalis Linn. var. canina

(Raf.) Sarg. floridana Raf. New Fl. N. Am. 3:37. 1836 [1838], descr. Alabama, Florida=C. occidentalis Linn.

fuscata Raf. op. cit. 33, descr. Florida, Texas, Cuba=C. laevigata Willd.

var. texensis Raf. 1.c., descr. (Celtis longifolia Raf., fide Raf., 1.c.)=C. laevigata Willd. heterophyla Raf. op. cit. 37, descr. Alabama=C. pumila

(Muhl.) Pursh.

longifolia Raf. Atl. Jour. 1:177. 1833, descr.; Herb. Raf. 22. 1833, descr.; op. cit. 56, nom.; New Fl. N. Am. 3:33, 1836 [1838], nom. sub C. fuscata Raf. Texas=Celtis fuscata Raf. var. texensis Raf.=C. laevigata Willd.

maritima Raf. Am. Monthly Mag. Crit. Rev. 2:44. 1817, descr.; Fl. Ludovic. 169. 1817, nom.; New Fl. N. Am. 3:35. 1836 [1838], descr. Long Island to Chesapeake Bay=Celtis

occidentalis Linn.
morifolia Raf. New Fl. N. Am. 3:34. 1836 [1838], descr.
Kentucky, Illinois=C. occidentalis Linn. var. cordata Kentucky, Illi (Pers.) Willd. parvifolia Raf. op. cit. 36, nom. alt. Celtis tenuifolia Raf.

Maryland to Louisiana.

patula Raf. op. cit. 37, descr. Florida=C. occidentalis Linn. \*pumila Raf. op. cit. 36, descr. (Celtis occidentalis Linn. var. pumila Michx.). Alleghany Mountains, Pennsylvania to Virginia.

salicifolia Raf. op. cit. 34, descr. Arkansas, Louisiana. tenuifolia Raf. op. cit. 36, descr. (Celtis pumila Pursh; C. occidentalis Linn. var. tenuifolia Lam.). Maryland and Virginia to Louisiana.

urticifolia Raf. op. cit. 32, nom. nov. provis. Celtis occidentalis Linn. New England to Carolina=C. occidentalis

#DASTIMA Raf. Fl. Ludovic. 25. 1817, nom., nota, sub Celtis alba, subgen. Celtis Linn. = Celtis Linn. SAUROBROMA Raf. Sylva Tellur. 32. 1838, descr. = Celtis

Linn.

iguanense Raf. 1.c., nom. (Rhamnus iguanaea Jacq.; Zizyphus iguanea Lam.). Tropical America=Celtis iguanaea (Jacq.) Sarg. (C. aculeata Sw.).

ULMUS Linn. alba Raf. Fl. Ludovic. 115. 1817, descr. (Orme 1, Rob. Voy. Louis. 3:521. 1807); First Cat. Bot. Gard. Transylv. Univ. 12. 1824, nom.; Herb. Raf. 55. 1833, nom.; New Fl. N. Am. 3:38. 1836 [1838], descr. (Ulmus americana Linn. var. pendula auct.). Louisiana, Kentucky, and other states= U. americana Linn.

aquatica Raf. Fl. Ludovic. 165. 1817, nom., nota (Planera gmelini Michx.). Louisiana=Planera aquatica (Walt.)

J. F. Gmel.

dentata Raf. New Fl. N. Am. 3:39. 1836 [1838], descr. Alabama = ? U. americana Linn.

dimidiata Raf. 1.c., descr. Florida, Georgia=? seq. longifolia Raf. op. cit. 38, descr. Alabama, Tennessee= U. alata Michx.

obovata Raf. 1.c., descr. Kentucky, Illinois=? U. americana Linn.

pinguis Raf. Fl. Ludovic. 115. 1817, descr. (Orme 2, Rob. Voy. Louis. 3:521. 1807); Herb. Raf. 55. 1833, nom.

\*sessilis Raf. New Fl. N. Am. 3:39. 1836 [1838], nom. nov. provis. Ulmus americana Linn. North America=U. americana Linn.

#### MORACEAE

#COTTANA Raf. Sylva Tellur. 58. 1838, descr. subgen. Ficus Linn. (Type Ficus lutea Vahl). Tropical Africa = Urostigma Gasp. (1844) = Ficus Linn., sect. Urostigma Endl. (1847).

FUSTICUS Raf. New Fl. N. Am. 3:43. 1836 [1838], descr.; Am. Man. Mulb. Trees 12. 1839, descr.; Good Book 45. 1840, nom. = Chlorophora Gaudich. (1826).

glabra Raf. New Fl. N. Am. 3:44. 1836 [1838], descr.; Am. Man. Mulb. Trees 12. 1839, nom.; Aut. Bot. 149. 1840, nom., nota. Southern Florida, Cuba.

tataiba Raf. New Fl. N. Am. 3:45. 1836 [1838], descr. (Morus tinctoria Linn.); Am. Man. Mulb. Trees 12. 1839, nom. Brazil = Chlorophora tinctoria (Linn.) Gaudich. tinctoria Raf. New Fl. 1.c., nom. alt. F. vera Raf. Mexico = Chlorophora tinctoria (Linn.) Gaudich.

Chlorophora tinctoria (Linn.) Gaudich. vera Raf. l.c., descr.; Am. Man. Mulb. Trees 12. 1839, nom. (Morus tinctoria Linn.). Central America, Yucatan, Ja-

maica = Chlorophora tinctoria (Linn.) Gaudich.

xanthoxylon Raf. Il.cc., descr., nom. (Morus xanthoxylon Linn.). Yucatan, Bahamas = Chlorophora tinctoria (Linn.). Gaudich.

GONOSUKE Raf. Sylva Tellur. 58. 1838, descr.=Covellia Gasp. (1844)=Ficus Linn. sect. Covellia Benth. (1880). demonum Raf. 1.c., nom. (Ficus daemona Koen. ex Vahl).

India.

hispida Raf. 1.c., nom. (Ficus hispida Linn. f.). India.
scabra Raf. 1.c., nom. (Fiscus scabra Jacq.). India.
IOXYLON Raf. Am. Monthly Mag. Crit. Rev. 2:118. 1817,
descr.; op. cit. 4:195. 1819 (Maclura Nutt.); New Fl. N.
Am. 3:42. 1836 [1838] (Maclura Nutt.)=Toxylon Raf.
(1818)=Maclura Nutt. (1818), nom. conserv. (Joxylon Raf.,
1819; Joxylon Raf., 1817; Toxylon Raf., 1818).
pomiferum Raf. Am. Monthly Mag. Crit. Rev. 2:118. 1817.

pomiferum Raf. Am. Monthly Mag. Crit. Rev. 2:118. 1817,

JOXYLON Raf. Jour. Chim. Phys. Hist. Nat. 89:260. 1819, nom., nota, sphalm. (Maclura Nutt.); Greene, Pittonia 2: 124. 1890; cf. Zabel Mitt. Deutsch. Dendr. Ges. 8:76. 1899=Toxylon Raf. (1818)=Maclura Nutt. (1818), nom. conserv., vide supra.

#KENKRAMIS Raf. Sylva Tellur. 58. 1838, descr. subgen. Ficus Linn. (Type, Ficus palmata Forsk.)=Ficus Linn., sect. Eusyce Benth. (1880).

#LEIOSUKE Raf. Sylva Tellur. 58. 1838, nom. subnud., sect.

subgen. Spherosuke Raf. = Ficus Linn.
\*MACLUREA Raf. Med. Fl. 2:268. 1830, nom., sphalm.= Maclura Nutt. (1818), nom. conserv., vide supra sub Ioxylon

\*MACLURIA Raf. Jour. Phys. Chim. Hist. Nat. 89:260. 1819, nom.=praec.

MASTOSUKE Raf. Sylva Tellur. 59. 1838, descr.=Urostigma Gasp. (1844)=Ficus Linn., sect. Urostigma Endl. (1847). rubiginosa Raf. 1.c., descr. (Ficus australis Willd.). Australia=Ficus rubiginosa Desf. MORUS Linn.

\*alata Hort. ex Raf. Am. Man. Mulberry Trees 26, 1839. nom., nota. Hab.?

alba Linn.; Raf. op. cit. 15, descr. Eurasia: naturalized Eastern United States.

var. alpina Raf. op. cit. 18, nom. Alps of Europe. atrata Raf. op. cit. 16, descr. Southern France, Italy.

cinerea Raf. op. cit. 17, descr. columbina Raf. op. cit. 16, descr. hispanica Raf. op. cit. 17, descr. Spain. hispanica nigrescens Raf. 1.c., descr. hispanica prolifera Raf. l.c., descr. integrifolia Raf. op. cit. 16, descr. laciniata Raf. 1.c., descr., Syria, Lebanon. lobata Raf. op. cit. 18, descr., Syria, Lebanon. lobata Raf. op. cit. 16, descr. lucida Raf. 1.c., descr. France. rotundifolia Raf. op. cit. 16, descr. France. rotundifolia nigrescens Raf. op. cit. 17, descr. rubella Raf. op. cit. 16, descr. spherica Raf. op. cit. 16, descr.

spinosa Raf. op. cit. 17, descr. syriaca Raf. op. cit. 17, descr. Syria. \*atrata Raf. op. cit. 27, nom. (Morus alba Linn. var. atrata Raf. op. cit. 16).

cretica Raf. op. cit. 20, descr.; Aut. Bot. 150. 1840, nom., nota. Crete.

expansa Hort. ex Raf. op. cit. 26, nom., nota.

\*hispanica Raf. op. cit. 27, nom. (Morus alba Linn. var. hispanica Raf. op. cit. 17).

indica Linn.; Raf. op. cit. 22, descr. India to Malaysia. var. arborea Raf. op. cit. 23, descr. molucana Raf. 1.c., descr. Moluccas.

italica Lam.

var. etrusca Raf. op. cit. 20, descr. Italy.

\*lucida Raf. op. cit. 27, nom. (Morua alba Linn. var. lucida Raf. op. cit. 16).

multicaulis Hort. ex Raf. New Fl. N. Am. 3:48. 1836 [1838], descr. China, Philippines=Morus multicaulis Perrottet (1825) fide Raf. Aut. Bot. 150. 1840=M. alba Linn. var. multicaulis (Pers.) Loud.

multicaulis Perrottet [China, Philippines]=praec. var. macrophylla Raf. Am. Man. Mulberry Trees 24. 1839, descr.

parvifolia Raf. New Fl. N. Am. 3:47. 1836 [1838], descr.; Am. Man. Mulberry Trees 31. 1839, descr.; Aut. Bot. 149. 1840, nom. Alleghany and Appalachian Mountains.

petiolaris Raf. Am. Man. Mulberry Trees 24. 1839, descr.; Aut. Bot. 150. 1840, nom. (Morus laciniata Mill.?) "Probably Polynesian."

pyramidalis Hort. ex Raf. op. cit. 27, nom., nota.

reticulata Raf. op. cit. 28, descr.; Aut. Bot. 149. 1840, nom. Ohio to Tennessee=M. rubra Linn.

†riparia Raf. op. cit. 31, descr.; New Fl. N. Am. 3:46. 1836 [1838], descr.; Aut. Bot. 149. 1840, nom. Susquehanna River, Pennsylvania=M. rubra Linn.

rubra Linn. Eurasia; naturalized in the Eastern United States.

var. heterophyla Raf. Am. Man. Mulberry Trees, New Fl. N. Am. Il.cc., descr. pallida Raf. 11.cc., descr.

purpurea Raf. 11.cc., descr. \*spinosa Raf. Am. Man. Mulberry Trees 27. 1839, nom. (Morus alba Linn. var. spinosa Raf. op. cit. 17).

tatarica Linn. Asia. var. obtusifolia Raf. op. cit. 22, Volga River.

pallida Raf. 1.c., descr. tomentosa Raf. Fl. Ludovic. 113. 1817, descr. (Murier à fruit blanc Rob. Voy. Louis. 3:518. 1807); Med. Fl. 2:244. 1830, nom.; Herb. Raf. 55. 1833, nom.; New Fl. N. Am. 3:47. 1836 [1838], descr.; Am. Man. Mulberry Trees 30. 1839, descr. Louisiana = Morus alba Linn.

\*vitifolia Raf. Aut. Bot. 150. 1840, descr., nom. nov. Morus scabra sensu Raf. Am. Mulberry Trees 29. 1839, non

Willd.). Louisiana.

NECALISTIS Raf. Sylva Tellur. 58. 1838, descr. = Ficus Linn.,

sect. Sycidium King (1887).

aspera Raf. l.c., nom. [Ficus aspera Forst. f.]. New Hebrides.

turbinata Raf. l.c., nom. (Ficus turbinata Willd.). New Hebrides=praec.

OLUNTOS Raf. Sylva Tellur. 58. 1838, descr.=Urostigma Gasp. (1844)=Ficus Linn., sect. Urostigma Endl. (1847). levigata Raf. l.c., nom. [Ficus laevigata Vahl]. West Indies. trigona Raf. l.c., nom. [Ficus trigona Linn. f.]. Guiana.

\*PAPYRIA Raf. Am. Man. Mulberry Trees 9. 1839, nom.=
Papyrius Lam. (1798)=Broussonetia Vent. (1799), nom.

conserv. (Papyrius Lam., 1798).

PERULA Raf. Sylva Tellur. 58. 1838, descr., non Schreb.
(1791)=Urostigma Gasp. (1844)=Ficus Linn., sect. Urostigma Endl. (1847).

benghalensis Raf. op. cit. 59, nom. [Ficus benghalensis Linn.].

retusa Raf. 1.c., nom. [Ficus retusa Linn.]. India.

rubiginosa Raf. 1.c., nom. [Ficus rubiginosa Desf.]. Australia.

REPHESIS Raf. Sylva Tellur. 59. 1838, descr.=Urostigma Gasp. (1844)=Ficus Linn., sect. Urostigma Endl. (1847). calyptrata Raf. 1.c., nom. [Ficus calyptrata Vahl]. Africa. ovata Raf. 1.c., nom. [Ficus ovata Vahl]. Africa. #SPHEROSUKE Raf. Sylva Tellur. 57. 1838, descr., subgen.

Ficus Linn.=Urostigma Gasp. (1844)=Ficus Linn., sect.

Urostigma Endl. (1847).

#SUCOMORUS Raf. Sylva Tellur. 57. 1838, descr. subgen. Ficus (Type Ficus cairica Linn.) = Sycomorus Gasp. (1844)=Ficus Linn., sect. Eusyce Benth. (1880).

SUKAMINEA Raf. New Fl. N. Am. 3:44. 1836 [1838], nor nov. Fusticus Raf. (1838) = Chlorophora Gaudich. (1826).

#SUKEON Raf. Sylva Tellur. 58. 1838, descr., subgen. Ficus Linn. (Type Ficus glomerata Roxb.)=Ficus Linn., sect. Neomorphe King (1888).

#SUKOISIA Raf. Sylva Tellur. 58. 1838, descr., sect. Sphero-

suke Raf.=Ficus Linn.

#TEREGA Raf. Sylva Tellur. 58. 1838, descr., subgen. Ficus Linn. (Type Ficus ampelas Burm. f.)=Ficus Linn. sect.

Sycidium King (1887).

Sycidium King (1887).

TOXYLON Raf. Am. Monthly Mag. Crit. Rev. 4:188. 1818, nom. nov. Maclura Nutt.; Atl. Jour. 1:146. 1832, nom. [Ioxylon Raf.); Med. Fl. 2:268. 1830, nom., nota (Maclura Nutt.); Loud. Gard. Mag. 8:247. 1832, nom., nota (Maclura Nutt. 1818 [Ioxylon Raf. 1817]), iter. Schlecht. Linnaea 8: Lit.-Ber. 72. 1833, iter. Britten, Jour. Bot. 38:227. 1900; New Fl. N. Am. 3:42. 1836 [1838], descr. (Ioxylon Raf. 1817; Maclura Nutt. 1818) = Maclura Nutt. (1818), nom. conserv. (Ioxylon Raf., 1817; Joxylon Raf., 1819; Toxylon Raf. 1818) Raf., 1818).

aurantiacum Raf. Med. Fl. 2:268. 1830, nom., nota (Maclura

aurantiaca Nutt.) = Maclura pomifera (Raf.) Schneid. maclura Raf. New Fl. N. Am. 3:43. 1836 [1838], descr. (Toxylon pomiferum Raf.; Maclura aurantiaca Nutt.; Broussonetia tinctoria Spreng.); Aut. Bot. 149. 1840, nom., nota; Am. Man. Mulberry Trees 10, 13. 1839, nom. Missouri, Arkansas, Texas=Maclura pomifera (Raf.) Schneid.
\*pomiferum Raf. New Fl. N. Am. 3:43. 1836 [1838], nom.,

in syn. sub Toxylon maclura Raf. = Maclura pomifera (Raf.)

Schneid.

\*TOXYLUS Raf. New Fl. N. Am. 3:42. 1836 [1838], nom. sub

Toxylon Raf. l.c.=praec.
#TRAXISUKE Raf. Sylva Tellur. 58. 1838, nom. subnud., sect., subgen. Spherosuke Raf.=Ficus Linn.

TREMOTIS Raf. Sylva Tellur. 59. 1838, descr. = Synoecia Miq. (1848) = Ficus Linn. sect. Synoecia Miq. (1867). cordata Raf. l.c., descr. (Ficus auriculata Lour.). Indo-China (Annam) = Ficus auriculata Lour. (Ficus roxburghii Wall.); see Merrill, Trans. Am. Philos. Soc. II. 24(2):135. 1935.

#TULOSUKE Raf. Sylva Tellur. 58. 1838, nom., sect., subgen. Spherosuke Raf.=Ficus Linn.

VARINGA Raf. Sylva Tellur. 58. 1838, descr. (Varinga Rumph. Herb. Amb. 3:134. t. 85. 1743)=Ficus Linn., sect. Eusyce Benth., 1880.

repens Raf. 1.c., nom. (Ficus pumila Linn.). Asia=Ficus

pumila Linn.

\*XOXYLON Raf. Am. Monthly Mag. Crit. Rev. 4:187. 1819 nom., sphalm.=Toxylon Raf. (1818)=Maclura Nutt. (1818) nom. conserv. (Ioxylon Raf., 1817; Joxylon Raf., 1819; Toxylon Raf., 1818).

# URTICACEAE

\*ADESIA Raf. ex Eaton, Man. ed. 3, 499, 1822, nom. sub Urtica pumila Linn.; Raf. New Fl. N. Am. 1:63. 1836, nom., nota., sphalm.=Adicea Raf. (1815)=Pilea Lindl. (1821), nom. conserv. (Adicea Raf., 1815).

\*trinerva Raf. ex. Eaton, l.c., nom., sphalm. North America=

Adicea trinerva Raf. = A. pumila (Linn.) Raf. = Pilea pumila

(Linn.) A. Gray.

†ADICEA Raf. Anal. Nat. Tabl. Univ. 179. 1815, nom.; First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom.; New Fl. N. Am. 1:63. 1836, nom. sub Adike Raf.=Pilea Lindl. (1821), nom. conserv. (Adicea Raf., 1815).

\*glaberrima Raf. Med. Fl. 2:186. 1830, nom., nota (Urtica bumila Linn) North America—Adicea sumila (Linn)

pumila Linn.). North America = Adicea pumila (Linn.) Raf.=Pilea pumila (Linn.) A. Gray. glabra Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824,

nom. (Urtica sp.). Kentucky. Prob.=praec. pumila Raf. ex Torr. Fl. N.Y. 2:223. 1843, nom. in syn. sub. Adike pumila (Linn.) Raf. North America=Pilea pumila (Linn.) A. Gray.
trinerva Raf. ex Torr. 1.c., nom. in syn. sub Adike pumila
(Linn.) Raf. North America=praec.

ADIKE Raf. New Fl. N. Am. 1:63. 1836, descr.; Fl. Tellur. 1:86. 1836 [1837], nom.; op. cit. 3:48. 1836 [1837], descr.; Good Book 44. 1840, nom.=Adicea Raf. (1815)=Pilea

Lindl. (1821), nom. conserv. allophyla Raf. Fl. Tellur. 3:48. 1836 [1837], descr. (Urtica

trianthemoides Sw.). Haiti=Pilea microphylla (Linn.) Liebm. var. trianthemoides (Sw.) Griseb. glaberima Raf. New Fl. N. Am. 1:64. 1836, descr. (Urtica pumila sensu Michx.). North America=Pilea pumila (Linn.) A. Gray var. ramosa Raf. 1.c., descr.

lanceolata Raf. 1.c., descr. (Urtica pumila sensu Ell.). Caro-

lina=Pilea pumila (Linn.) A. Gray.

pumila Raf. op. cit. 63, descr. (Urtica pumila Linn.). Alleghany Mountains=Pilea pumila (Linn.) A. Gray.

var. minima Raf. l.c., descr.

rhomboidea Raf. op. cit. 64, descr. Kentucky=Pilea pumila

(Linn.) A. Gray.

CALOSTIMA Raf. Fl. Tellur. 3:47. 1836 [1837], descr.; Sylva Tellur. 117. 1838, descr.=Urera Gaudich. (1826).

aculeata Raf. Il.cc., descr. (Urtica "baccata" [baccifera Linn.]; Urtica arborescens baccifera Plumier, Pl. Am. 259. t. 260. 1760; Urtica baccifera Linn.; Andr. Bot. Repos. 7: t. 454. 1807). West Indies=Urera baccifera (Linn.) Gaudich.

\*LITHOCNIDE Raf. Fl. Tellur. 3:48. 1836 [1837], descr.=

Rousselia Gaudich. (1826).

\*lappulacea Raf., 1.c., descr. (Urtica lappulacea Sw.). West Indies=Rousselia humilis (Sw.) Urb. (R. lappulacea Gaudich.).

LITHOCNIDES Raf. ex. Jacks\*. Ind. Kew. 2:98. sphalm.=Lithocnide Raf.=Rousselia Gaudich. (1826). 1894. lappulacea Raf. ex Jacks\*. 1.c.=Rousselia humilis (Sw.) Urb.

West Indies.

NIRWAMIA Raf. Sylva Tellur. 35. 1838, descr.=Pellionia Gaudich. (1826), nom. conserv. (Polychroa Lour., 1790).

pellucida Raf. l.c., descr. (Nir-wam [Niwami] No. 98 Thunb. Fl. Jap. 367, 1784, i.e., Frutex urticae foliis et facie). Japan=Pellionia scabra Benth. (1861); see Nakai, Bot. Mag. Tokyo 41:515, 1927=Pellionia pellucida (Raf.) Merr. Logo Arrold Arb. 20:211, 1049 Jour. Arnold Arb. 29:211. 1948.

OBLÍXILIS Raf. Med. Fl. 2:272. 1830, nom., subgen. Urtica Linn.; Fl. Tellur. 3:49. 1836 [1837], descr. ut gen.= Laportea Gaudich. (1826), nom. conserv. (Urticastrum

Fabr., 1759).

canadensis Raf. ex Jacks\*. Ind. Kew. 2:323. 1894 (Urtica canadensis Linn.). North America=Laportea canadensis (Linn.) Gaudich.

divaricatus Raf. ex Jacks\*. 1.c. (*Urtica divaricata* Linn.). North America=Laportea canadensis (Linn.) Gaudich.

PARIETARIA Linn.

\*alsinefolia Raf. Chloris Aetn. 4. 1815, nom. Sicily. An P. alsinefolia Delile?

\*falcata Raf. Herb. Raf. 52. 1833, nom.; Aut. Bot. 53. 1840, descr. Siberia and Oregon.

\*heterophylla Raf. Med. Fl. 2:250. 1830, nom.; Aut. Bot. 52. 1840, descr. (heterophyla). Kentucky, Tennessee. \*rotundifolia Raf. Aut. Bot. 53. 1840, descr. Florida.

\*rufa Raf. Med. Fl. 2:250. 1830, nom.; Herb. Raf. 38. 1833,

nom.; Aut. Bot. 53. 1840, descr. Upper Missouri. \*suffruticosa Raf. Aut. Bot. 52. 1840, descr. West Indies,

and? Florida.

\*virgata Raf. I.c., descr. Appalachian Mountains of Virginia. PENTOCNIDE Raf. Fl. Tellur. 3:48. 1836 [1837], descr.= Pouzolzia Gaudich (1826).

glomerata Raf. 1.c., descr. [Urtica glomerata Klein] = Pouzolzia zeylanica (Linn.) Benn. (P. indica Gaudich.). West

Indies.

\*\*Tabl. Univ. 179. 1815, nom.; Fl. Tellur. 1:86. 1836 [1837], nom.; op. cit. 3:48. 1836 [1837], descr.=Urtica Linn.

\*\*montanum Raf. Fl. Tellur. 3:48. 1836 [1837], nom.

\*urticae Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824,

nom. Kentucky.

\*vernum Raf. Fl. Tellur. 3:48. 1836 [1837], nom. [Urtica verna Raf.]. Kentucky.

\*UDRASTINA Raf. First Cat. Bot. Gard. Transylv. Univ. 16. 1824, nom.=Laportea Gaudich. (1826), nom. conserv. (Urticastrum Fabr. 1759).

\*cannabina Raf. l.c., nom. (Urtica canadensis Linn.). Ken-

tucky = Laportea canadensis (Linn.) Gaudich.

URTICA Linn.

RICA Linii.

alba Raf. Fl. Ludovic. 114. 1817, nom., nota (Ortie blanche Rob. Voy. Louis. 3:519. 1807). Louisiana.

\*baccata Raf. Sylva Tellur. 117. 1836, nom. in syn. sub Calostima Raf.; Fl. Tellur. 3:47. 1836 [1837], nom., sphalm.=Urtica baccifera Linn.=Urera baccifera (Linn.) Gaudich. South America.

gracilis Raf. Atl. Jour. 1:16. 1832, descr. Kentucky. leucotrys Raf. Fl. Ludovic. 114. 1817, descr. (Ortic 3, Rob. Voy. Louis. 3:519, 1807). Louisiana.

\*longifolia Raf. Herb. Raf. 61. 1833, nom.; Raf. ex Wedd. Monog. Urt. 78. 1856, nom. in syn. Kentucky or Illinois = procera Muhl. (1805); see Fernald, Rhodora 28:195.

\*rotundifolia Raf. op. cit. 52, nom. Rocky Mountains or Oregon.

rubra Raf. Fl. Ludovic. 113. 1817, descr. (Ortie rouge Rob. Voy. Louis. 3:519. 1807). Louisiana. verna Raf. Atl. Jour. 1:16. 1832, descr.; Herb. Raf. 61. 1833, nom.; New Fl. N. Am. 2:26. 1836 [1837], descr. Ken-

var. gracilis Raf. New Fl. N. Am. 1.c., descr.

#### PROTEACEAE

BANKSIA Linn. f. (1781), non Banksia J. R. & G. Forst. (1776), nom. conserv. (Sirmuellera O. Kuntze, 1881).

\*grandis Hort. ex Raf. Aut. Bot. 142. 1840, descr. Australia. An Banksia grandis Willd.?

serrata Linn. f. var. latifolia Raf. l.c., descr. Australia. ICMANE Raf. Aut. Bot. 141. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:95. 1921, nom. Ex descr.=Hakea Schrad. (1797)

\*heterophyla Raf. op. cit. 142, descr. (Banksia heterophylla

hort.). Australia.

nerifolia Raf. 1.c., descr.; Pennell, 1.c., nom. Australia. PROTEA Linn.

\*pilosa Raf. Aut. Bot. 142. 1840, descr. (Protea tomentosa hort., non Thunb.). South Africa=? Leucospermum ellipticum R. Br.

\*rugosa Raf. l.c., descr. (Protea pallens Thunb., non Linn.). South Africa = Leucospermum decurrens R. Br.

#### LORANTHACEAE

ALLOHEMIA Raf. Sylva Tellur. 125. 1838, descr. = Phthirusa Mart. (1830)

pedunculata Raf. l.c., nom. [Loranthus pedunculatus Jacq.]. Colombia.

purpurea Raf. I.c., nom. (Loranthus occidentalis Linn.). South America.

uniflora Raf. I.c., nom. [Loranthus uniflorus Jacq.]. Santo Domingo.

ANTRIBA Raf. Sylva Tellur. 126. 1838, descr.=Loranthus

Linn., sensu lat. (Scurrula Linn.).
budleoides Raf. l.c., nom. (Loranthus budleoides Desr., sphalm. Raf. "R[uiz] & P[avon]." East Indies [an Philippines?] = Loranthus scurrula Linn. (Scurrula parasitica Linn., vel L. philippensis Cham. & Schlecht.).

EPICOILA Raf. Sylva Tellur. 126. 1838, descr.=Psittacanthus Mart. (1830)

grandiflora Raf. 1.c., nom. (Loranthus grandiflorus Ruiz & Pavon). Peru.

ETUBILA Raf. Sylva Tellur. 125. 1838, descr.=Loranthus Linn., sensu lat. (Dendrophthoë Mart., 1830, quoad L. longiflorus Linn.).

brasiliensis Raf. 1.c., nom. (Loranthus brasiliensis Desr.). Brazil.

dichotoma Raf. 1.c., nom. (Loranthus dichotomus Ruiz & Pavon). Peru.

ferruginea Raf. op. cit. 159, descr. Celebes.

longiflora Raf. op. cit. 125, nom. (Loranthus longiflorus Desr.). India = Dendropthoë falcata (Linn. f.) Ettingsh.

maculata Raf. op. cit. 159, descr. Celebes.

GLUTAGO Comm. ex Poir. (1821); Raf. Sylva Tellur. 126.
1838, descr.=Oryctanthus Eichl. (1868). spicata Raf. 1.c., nom. (Loranthus spicatus Jacq.). Colombia=

Oryctanthus spicatus (Jacq.) Eichl.

HELISANTHERA Raf. Ann. Gén. Sci. Phys. 6:87. 1820, nom. nov. Helicia Pers. (1805), non Lour. (1790) = Loranthus Linn., sensu lat. (Helixanthera Lour. 1790).

HEMITRIA Raf. Ann. Gén. Sci. Phys. 6:79. 1820, nom.= Phthirusa Mart. (1830).

uniflora Raf. ex Jacks\*. Ind. Kew. 1:1127. 1893 (Loranthus uniflorus Jacq.). Santo Domingo=Phthirusa uniflora Santo Domingo=Phthirusa uniflora

(Jacq.) Eichl.

HYPHIPUS Raf. Sylva Tellur. 125. 1838, descr.=Psittacanthus Mart. (1830).

bracteata Raf. l.c., nom. (Loranthus cupulifer H.B.K.).

trigona Raf. I.c., nom. (Loranthus americanus Linn.). Tropical America.

ITICANIA Raf. Sylva Tellur. 125. 1838, descr.=Loranthus Linn. sensu lat. (Scurrula Linn.). loniceroides Raf. 1.c., nom. (Loranthus loniceroides Linn.). India=Loranthus scurrula Linn. (Scurrula parasitica Linn.).

MEIENA Raf. Sylva Tellur. 125. 1838, descr. = Loranthus Linn. sensu lat. (Dendropthoë Mart., 1830). axillaris Raf. 1.c., nom. (Loranthus pentandrus Linn.). India.

(Dendropthoë pentandra Miq.). OZARTHRIS Raf. Fl. Tellur. 4:92. 1836 [1838], descr. = Viscum

Linn.

capensis Raf. 1.c., descr. (Viscum capense Linn. f.). South Africa=Viscum capense Linn. f.

opuntioides Raf. l.c., nom. [Viscum opuntioides Linn.]. West Indies = Dendropthora opuntioides (Linn.) Eichl.

paradoxa Raf. I.c., descr. (Viscum verticillatum Linn.; Cactus pendulus Sw.; Cassytha baccifera "Sal," [Mill.]). West Indies=Phoradendron verticillatum (Linn.) Druce (P. trinervium Griseb.), et quoad syn. Sw. et Mill., Rhipsalis cassytha Gaertn.

triquetra Raf. 1.c., descr. (Viscum articulatum Burm. f.). Indo-Malaya=Viscum articulatum Burm. f.

PELTOMESA Raf. Sylva Tellur. 126. 1838, descr. = Struthanthus Mart. (1830). acuminata Raf. 1.c., nom. (Loranthus acuminatus Ruiz &

Pavon). Peru.

SCURRULA Linn. = Loranthus Linn. (1762), sensu lat. nom. conserv. (Scurrula Linn., 1753).
cinerea Raf. Sylva Tellur. 159. 1838, descr. Celebes.

elliptica Raf. op. cit. 125, nom. (Loranthus tetrapetalus Linn. f.). New Zealand. \*obovata Raf. 1.c., nom. nov. Loranthus scurrula Linn. South-

eastern Asia.

umbellata Raf. 1.c., nom. (Loranthus tetrandrus Ruiz & Pavon). Peru.

STEIROTIS Raf. Ann. Gén. Sci. Phys. 6:79. 1820, nom. (Type Loranthus pedunculatus Jacq.). Colombia = Struthanthus Mart. (1830)

STREPSIMELA Raf. Sylva Tellur. 159. 1838, descr.=Loranthus Linn., sensu lat. (Helixanthera Lour., 1790). coccinea Raf. l.c., descr. Borneo=Loranthus pentapetalus Roxb.=Helixanthera parasitica Lour.

TAGUARIA Raf. Sylva Tellur. 125. 1838, descr. (Ind. Kew. 2:1032. 1895 "Aguaria," sphalm.) = Gaiadendron G. Don 1834).

elliptica Raf. 1.c., nom. (Loranthus ellipticus Ruiz & Pavon). Peru.

laurifolia Raf. 1.c., nom. (Loranthus laurifolius H.B.K.). Colombia.

TAGUARIA (continued).

nitida Raf. 1.c., nom. (Loranthus nitidus H.B.K.). Ecuador. punctata Raf. I.c., nom. (Loranthus punctatus Ruiz & Pavon). Peru.

puracensis Raf. ex Jacks\*. Ind. Kew. 2:1032. 1895 (Loranthus puracensis H.B.K.). Ecuador.

\*puraensis Raf. Sylva Tellur. 1.c., nom. (Loranthus puracensis H.B.K.) = praec.

vera Raf. 1.c., nom. (Loranthus tagua H.B.K.). Colombia.

VISCUM Linn.

leucarpum Raf. Fl. Ludovic. 79. 1817, descr. (Viscum album sensu Walter, non Linn.; V. flavescens Pursh; Viscum Rob. Voy. Louis. 3:458. 1807); Am. Monthly Mag. Crit. Rev. 2:176. 1818, nom. (V. flavescens Pursh); New Fl. N. Am. 3:23. 1836 [1838], descr. Western Louisiana, Texas Phoradendron flavescens (Pursh) Nutt. leucocarpum Raf. ex DC. Prodr. 4:280. 1830, nom. in syn.=

praec.

oblongifolium Raf. New Fl. N. Am. 3:23. 1836 [1838], descr. Florida.=Phoradendron flavescens (Pursh) Nutt. ochroleucum Raf. l.c., descr. (Viscum verticillatum sensu Ell., non Linn.). New Jersey to Florida=Phoradendron flaves-

cens (Pursh) Nutt.

rugosum Raf. op. cit. 24, descr. Delaware and Virginia=

Phorodendron flavescens (Pursh) Nutt.

†serotinum Raf. Ann. Gén. Sci. Phys. 5:348. 1820, descr.;
Isis von Oken 1821, 2:977. 1821, descr.; First Cat. Bot.
Gard. Transylv. Univ. 16. 1824, nom.; Med. Fl. 2:275.
1830, nom.; New Fl. N. Am. 3:22. 1836 [1838], descr.
Kentucky, Illinois, Missouri=Phoradendron flavescens Kentucky, III (Pursh) Nutt.

\*vulram Raf. New Fl. N. Am. 3:24. 1836 [1838], descr. (Viscum foliis longioribus baccis rubris Catesby, Nat. Hist. Carol. 2:81. t. 81. 1733). Bahamas; on Sweitenia and other trees=Viscum rubrum Linn.=Phoradendron rubrum

(Linn.) Griseb.

#### SANTALACEAE

CALINUX Raf. Med. Repos. II. 5:353. 1808, nom. nov. Pyrularia Michx.; Jour. Bot. (Paris) 2:172. 1809, nom. (Pyrularia Michx.); Am. Monthly Mag. Crit. Rev. 2:176. 1818, nom., nota (Hamiltonia Muhl. ex Willd.; Pyrularia Michx.) = Pyrularia Michx. (1803).

CALYNUX Raf. Jour. Phys. Chim. Hist. Nat. 89:257. 1819, nom., nota (Hamiltonia Muhl. ex Willd.; Pyrularia

Michx.) = praec.

COMANDRA Nutt.

cuneifolia Raf. New Fl. N. Am. 2:33. 1836 [1837], descr. Western Kentucky=C. umbellata (Linn.) Nutt. elliptica Raf. l.c., descr. (Comandra umbellata Nutt.?). East-

ern North America=C. umbellata (Linn.) Nutt.

media Raf. 1.c., descr. New Jersey, Virginia=C. umbellata (Linn.) Nutt.

obovata Raf. l.c., descr. Alleghany Mountains = C. umbellata

(Linn.) Nutt. obtusifolia Raf. 1.c., descr. Ohio, Illinois=C. umbellata (Linn.) Nutt.

umbellulata Raf. 1.c., nom. Eastern North America=C. umbellata (Linn.) Nutt.

NESTRONIA 9 Raf. New Fl. N. Am. 3:12. 1836 [1838], descr.; op. cit. 95, nom.; Fl. Tellur. 4:106. 1836 [1838], descr., Alsogr. Am. 64, 1838, nom.; Good Book 45, 1840, nom.; Aut. Bot. 6. 1840, nom. (Darbya A. Gray, 1846).

cuneata Raf. New Fl. N. Am. 3:14. 1836 [1838], descr., sub N.? undulata Raf. (Rhamnus? cuneatus Dougl.). Oregon=Ceanothus cuneatus (Dougl.) Nutt. (Rhamnaceae).

umbellula Raf. New Fl. N. Am. 1.c., descr.; Fl. Tellur. 4:107. 1836 [1838], descr. (sphalm. "umbelluta"); Aut. Bot. 6. 1840, nom. Georgia, Florida. (Darbya umbellulata A. Gray).

umbellulata Raf. ex Jacks\*. Ind. Kew. 2:309. 1894=praec. undulata Raf. New Fl. N. Am. 3:13. 1836 [1838], descr. Fl. Tellur. 4:107. 1836 [1838], descr. Georgia, Florida.

### OLACACEAE

PIMECARIA Raf. Alsogr. Am. 64. 1838, descr. = Ximenia Linn. odorata Raf. op. cit. 65, descr. (Bartr. Trav. 114-15. 1791, descr., cum nom. "Wild Lime or Tallow Nut"). Florida= Ximenia americana Linn.

\*SPERMOXYRON Raf. Fl. Tellur. 4:93. 1836 [1838], descr., sphalm.=Spermaxyrum Labill. (1806)=Olax Linn.

#### ARISTOLOCHIACEAE

\*ALPAN Bosc ex Raf. Sylva Tellur. 13. 1838, nom. in syn. [Alpam Rheede, Hort. Malabar. 6:51. t. 28. 1686] = Apama Lam. (1781).

AMBUYA Raf. Fl. Tellur. 4:98. 1836 [1838], descr.=Aristo-

lochia Linn.

lochia Linn.

labiosa Raf. I.c., descr. (Aristolochia labiosa Ker-Gawl. Bot. Reg. 8: t. 689, 1823; Sims, Bot. Mag. 52: t. 2545. 1825; Aristolochia ringens Link & Otto, Ic. Pl. Sel. 1:33. t. 13. 1820-28, non Vahl). Brazil.

APAMA Lam.; Raf. Sylva Tellur. 13. 1838, descr.

laurifolia Raf. I.c., descr. [Alpam Rheede, Hort. Malabar. 6:51. t. 28. 1686]. India=Bragantia wallichii R. Br.=

Apama siliquosa Lam.

ARISTOLOCHIA Linn.

coriacea Raf. Atl. Jour. 1:146. 1832, nom. (Aristolochia s.n. Torr. Ann. Lyc. Nat. Hist. N. Y. 2:242. 1827, descr.). Canadian River—Aristolochia tomentosa Sims.

dodecandra Raf. Med. Fl. 1:62. 1828, nom. sub Endodeca Raf. Hab.

tripteris Raf. Fl. Ludovic. 24. 1817, descr. (Aristoloche de la Louisiane Rob. Voy. Louis. 3:356. 1807). Louisiana.

ASARUM Linn.

canadense Linn. North America. var. acutifolium Raf. Med. Fl. 1:264. 1838, nom., nota. Taconic Mountains, New York.

macrophyllum Raf. 1.c., nom.

macrophyllum Raf. 1.c., nom.
pumilum Raf. 1.c., nom.
furcatum Raf. New Fl. N. Am. 2:20. 1836 [1837], descr.
Appalachian Mountains?
medium Raf. 1.c., descr. "Missouri and upper lakes."
parvifolium Raf. 1.c., descr. North Carolina.
rotundifolium Raf. Herb. Raf. 52. 1833, nom.; New Fl.
N. Am. 2:21. 1836 [1837], descr. "Origon Mts." i.e., Rocky Mountains.

#CLEMATOPS Raf. Fl. Tellur. 4:97. 1836 [1838], descr. subgen. Aristolochia Linn. (Type Aristolochia anguicida Jacq.)=Aristolochia Linn.

\*DASYPHONION Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom.=Aristolochia Linn. \*tomentosum Raf. 1.c., nom. (Aristolochia [tomentosa Sims]). Kentucky.

DICTYANTHES Raf. Loud. Gard. Mag. 8:247. 1832, nom., iter. Schlecht. Linnaea 8: Lit.-Ber. 71. 1833, iter. Britten, Jour. Bot. 38:227. 1900 = Aristolochia Linn.

labiosa Raf. ex Jacks\*. Ind. Kew. 1:753. 1893 (Aristolochia labiosa Ker-Gawl.). Brazil. DIGLOSSELIS Raf. Fl. Tellur. 4:98. 1836 [1838], descr.= Aristolochia Linn.

cymbifera Raf. l.c., descr. (Aristolochia cymbifera Mart. & Zucc. Nov. Gen. Sp. Pl. 1:76. t. 49. 1824; Lindl. Bot. Reg. 18: t. 1543. 1832). Brazil.

latifolia Raf. 1.c., descr. (Aristolochia ringens Vahl). West Indies.

trinervis Raf. 1.c., descr. (Aristolochia bilabiata Linn.). Santo Domingo.

EINOMEIA Raf. Med. Fl. 1:62. 1828, descr., iter. Man. Med. Bot. 62. 1840; Casket 1830:568. 1830, nom.; Loud. Gard. Mag. 8:247. 1832, nom., nota, iter. Schlecht. Linnaea 8: Lit.-Ber. 71. 1833, iter. Britten Jour. Bot. 38:227. 1900; Raf. Fl. Tellur. 4:98. 1836 [1838], descr. (Type Aristolochia pentandra Jacq.)=Aristolochia Linn. bracteata Raf. Fl. Tellur. 4:98. 1836 [1838], nom. (Aristo-

lochia pentandra Jacq.). Cuba.
pentandra Raf. ex Jacks\*. Ind. Kew. 1:824. 1893 (Aristolochia pentandra Jacq.). Cuba.
ENDODECA Raf. Med. Fl. 1:62. 1828, descr., subgen. Aristo-

lochia Linn., iter. Man. Med. Bot. 62. 1841; Loud. Gard. Mag. 8:247. 1833, nom., ut gen., iter. Schlecht. Linnaea 8: Lit.-Ber. 71. 1833, iter. Britten, Jour. Bot. 38:227. 1900; Raff. Fl. Tellur. 4:98. 1836 [1838], descr.=Aristolochia Linn.

<sup>9</sup> By some authors reduced to Buckleya Torr. (1843), the latter name conserved against Nestronia Raf. (1838). Robinson and Fernald (1908), Britton & Brown (1913), and Small (1933), recognize Nestronia Raf. as generically distinct. As thus interpreted Darbya A. Gray (1846) is a synonym.

dodecandra Raf. ex Jacks\*. Ind. Kew. 1:840. 1893 (Aristolochia dodecandra Raf.) [Eastern North America].

hastata Raf. Fl. Tellur. 4:99. 1836 [1838], nom. (Aristolochia hastata Nutt.). Eastern North America=Aristolochia serpentaria Linn. var. hastata (Nutt.) Duchartre.

sempervirens Raf. 1.c., nom. (Aristolochia sempervirens Linn.).

Crete.

serpentaria Raf. ex Jacks\*. Ind. Kew. 1:840. 1893 (Aristo-lochia serpentaria Linn.). Eastern North America.

ENDOTHECA Raf. ex Jacks\*. Ind. Kew. 1:840. 1893, sphalm.= Endodeca Raf. (1828) = Aristolochia Linn.

#ERTOGLOSSA Raf. Fl. Tellur. 4:97. 1836 [1837], descr., subg. Aristolochia Linn. (Type Aristolochia surinamensis Willd.).

#GLOSSULA Raf. Med. Fl. 1:62. 1828, descr., iter. Man. Med. Bot. 62. 1841, subgen. Pistolochia Raf.; Loud. Gard. Mag. 8:247. 1832, nom., nota, sub Aristolochia Linn. (gen. vel subgen.), iter. Schlecht. Linnaea 8: Lit.-Ber. 71. 1833, iter. Britten, Jour. Bot. 38:227. 1900=Glossula Reichb. (1837) non Lindl. (1824)=Aristolochia Linn.

#GLOSSURA Raf. Fl. Tellur. 4:97. 1836 [1837], descr. subgen. Aristolochia Linn. (Type Aristolochia caudata Jacq.)=

Aristolochia Linn.

HEXAPLECTRIS Raf. Fl. Tellur. 4:97. 1836 [1838], descr.= Aristolochia Linn.

Bot. Reg. 17: t. 1399. 1831). South America. fuscata Raf. l.c., descr. (Aristolochia caudata Booth ex Lindl. Bot. Reg. 17: t. 1453. 1831, non Jacq.). Brazil=Aristo-

lochia macroura Gomez.

HEXASTYLIS Raf. Neogen. 3. 1825, descr.; Fl. Tellur. 4:99. 1836 [1838], descr., non Hexastylis Raf. 1837=Asarum Linn.

arifolia Raf. Fl. Tellur. 4:99. 1836 [1838]. (Asarum arifolium Michx.). Carolina to Kentucky = Asarum arifolium Michx.

ISIPHIA Raf. Med. Fl. 2:232. 1830, nom., nota=Aristolochia Linn.

glabra Raf. 1.c., nom. (Aristolochia sipho L'Hérit.). North America=A. durior Hill.

tomentosa Raf. 1.c., nom. [Aristolochia tomentosa Sims]. North America.

tripteris Raf. 1.c., nom. [Aristolochia tripteris Raf.]. Louisiana.

ISOTREMA Raf. Am. Monthly Mag. Crit. Rev. 4:195. 1819, nom., nota (Aristolochia sipho L'Hérit.); Jour. Phys. Chim. Hist. Nat. 89:102. 1819, descr.; Isis von Oken 1920, 1: Lit. Anz. 240. 1820, descr.=Aristolochia Linn. sipho Raf. ex Jacks\*. Ind. Kew. 1:1240. 1893 (Aristolochia

sipho L'Hérit.). North America=A. durior Hill.

#MESTENIPHUS Raf. Fl. Tellur. 4:97. 1836 [1838], descr. subgen. Aristolochia Linn. (Type Aristolochia grandiflora Sw.).

†NIPHUS Raf. Loud. Gard. Mag. 8:247. 1832, nom. alt. Siphidia Raf., iter. Schlecht. Linnaea 8: Lit.-Ber. 71. 1833, iter. Britten, Jour. Bot. 38:227. 1900 = Aristolochia Linn.

†PISTOLOCHIA Raf. Med. Fl. 1:62. 1828, descr., iter. Man. Med. Bot. 62. 1841, subgen. Aristolochia Linn.; Loud. Gard. Mag. 8:247. 1832, nom., iter. Schlecht. Linnaea 8: Lit.-Ber. 71. 1833, iter. Britten, Jour. Bot. 38:227. 1900; Fl. Tellur. 4:98. 1836 [1838], descr., ut gen., non Bernh. (1800)= Aristolochia Linn.

angustifolia Raf. Fl. Tellur. 1.c., nom.

latifolia Raf., 1.c., nom. serpentaria Raf. 1.c., nom. [Aristolochia serpentaria Linn.]. Eastern North America.

PLAGISTRA Raf. Fl. Tellur. 4:98. 1836 [1838], descr. = Aristolochia Linn.

cretica Raf. I.c., nom. (Aristolochia cretica Lam.). Crete. PSOPHIZA Raf. Fl. Tellur. 4:99. 1836 [1838], descr. = Aristo-

lochia Linn. undulata Raf. 1.c., descr. (Aristolochia serpentaria sensu Bigelow, Med. Bot. 3: t. 49. 1820). Florida=Aristolochia

serpentaria Linn.

**PTERIPHIS** Raf. Fl. Tellur. 4:99. 1836 [1838], descr. = Aristolochia Linn.

tripteris Raf. l.c., descr. (Aristolochia tripteris Raf.) Loui-

SIPHIDIA Raf. Loud. Gard. Mag. 8:247. 1832, nom., iter. Schlecht. Linnaea 8: Lit.-Ber. 71. 1833, iter. Britten, Jour. Bot. 38:227. 1900 = Aristolochia Linn.

SIPHISIA Raf. Med. Fl. 1:62. 1828, descr., iter. Man. Med. Bot. 62. 1841; Fl. Tellur. 4:99. 1836 [1838], descr.= Aristolochia Linn.

glabra Raf. Med. Fl. op. cit. 65, nom. nov. Aristolochia sipho L'Hérit.; Fl. Tellur. l.c. nom. (Aristolochia sipho L'Hérit.).

Eastern North America = A. durior Hill. sipho Raf. ex Jacks\*. Ind. Kew. 2:915. 1895 (Aristolochia

sipho L'Hérit.). Eastern North America = A. durior Hill. †tomentosa Raf. Med. Fl. 1:65. 1828, nom. (Aristolochia tomentosa Sims), iter. Man. Med. Bot. 65. 1841; Fl. Tellur. 4:99. 1836 [1838], nom. (Aristolochia tomentosa Sims). Eastern North America.

tripteris Raf. ex Jacks\*. Ind. Kew. 2:915. 1895 (Aristolo-

chia tripteris Raf.). Louisiana.

TROPEXA Raf. Fl. Tellur. 4:98. 1836 [1838], descr. = Aristolochia Linn.

biloba Raf. 1.c., descr. (Aristolochia bilobata Linn.). Santo Domingo.

#### POLYGONACEAE

ACETOSA Mill.=Rumex Linn.

agrestis Raf. New Fl. N. Am. 4:52. 1836 [1838], nom. alt. Rumex agrestis Raf. North America.

amplexicaulis Raf. op. cit. 53, nom. alt. Rumex amplexicaulis Raf. Eastern Europe.

angustata Raf. 1.c., nom. alt. Rumex angustatus Raf. Sicily,

Crete. bidentata Raf. op. cit. 52, nom. alt. Rumex bidentatus Raf.

Italy. Greece. bidentula Raf. ex Jacks\*. Ind. Kew. 1:21. 1893, sphalm.=

A. bidentata Raf.

\*hastatula Raf. New Fl. 1.c., nom. alt. Rumex hastatulus Raf. Europe and Red River (Arkansas).

hastulata Raf. ex Jacks\*. Ind. Kew. 1:21. 1893, sphalm.= A. hastatula Raf.

heterophyla Raf. New Fl. 1.c., nom. alt. Rumex heterophylus Raf. Appalachian Mountains of Virginia.

integrifolia Raf. 1.c., nom. alt. Rumex integrifolius Raf. Kentucky.

olitoria Raf. op. cit. 53, nom. alt. Rumex olitorius Raf. North America

**ANALITON** Raf. Fl. Tellur. 3:46. 1836 [1837], descr.=Rumex Linn.

bipinnatus Raf. ex. Jacks\*. Ind. Kew. 1:116. 1893 (Rumex

bipinnatus Raf. ex. Jacks'. Ind. Rew. 1.110. 1005 (Rumer bipinnatus Linn.). Morocco.

ANTENORON Raf. Fl. Ludovic. 28. 1817, descr.; Fl. Tellur. 3:12. 1836 [1837], descr.; New Fl. N. Am. 4:47. 1836 [1837], nom.=Tovara Adans. (1763)=Polygonum Linn. racemosum Raf. Fl. Ludovic. et Fl. Tellur. Il.cc., descr. (Atra-

phace renouée Rob. Voy. Louis. 3:364. 1807). Louisiana = Polygonum virginianum Linn. (Tovara virginiana (Linn.) Raf.)

#ATECOSA Raf. Fl. Tellur. 3:46. 1836 [1837], descr., subgen. Rumex Linn

#BELOTRACHYS Raf. Fl. Tellur. 3:11. 1836 [1837], descr., subgen. Polygonum Linn. (Type, Polygonum sagittatum Linn.)=Tracaulon Raf. (1837)=Polygonum Linn.

BISTORTA Linn. = Polygonum Linn. americana Raf. Fl. Tellur. 3:12. 1836 [1837], nom. North America.

officinalis Raf. 1.c., nom. [Polygonum bistorta Linn.]. Boreal regions.

CALACINUM Raf. Fl. Tellur. 2:33. 1836 [1837], descr.=
Muehlenbeckia Meissn. (1840), nom. conserv. (Calacinum
Raf., 1837; Karkinetron Raf., 1837; Sarcogonum D. Don, 1839).

adpressum Raf. op. cit. 34, descr. (Polygonum adpressum Labill.; Hook. Bot. Mag. 59: t. 3145. 1832). Australia = Muehlenbeckia adpressa (Labill.) Meissn.

australe Raf. 1.c., descr. (Coccoloba australis Forst. f.). New Zealand=Muehlenbeckia australis (Forst. f.) Meissn.

\*CETTIANA Raf. Speech. Sci. 2:136. 1814, descr.; Anal. Nat. Tabl. Univ. 179. 1815, nom.=Rumex Linn.

\*lunaria Raf. Specch. Sci. l.c., descr. (Rumex lunaria Linn.).
Canary Islands; introd. in Sicily.

CHULUSIUM Raf. Ann. Nat. Ann. Synop. 12. 1820, nom. nov. provis. sub Polygonum punctatum Raf.; Fl. Tellur. 3:14, 1836 [1837], descr.; New Fl. N. Am. 4:47, 50. 1836 [1838], nom.=Polygonum Linn. acuminatum Raf. Fl. Tellur. 1.c., descr. (Polygonum puncta-

tum Raf.). Western Kentucky.

CHULUSIUM (continued)

amphibium Raf. ex Jacks\*. Ind. Kew. 1:532. 1893. (Poly-

gonum amphibium Linn.). North temperate regions. filiforme Raf. ex Jacks\* l.c. (Polygonum filiforme Barton). Pennsylvania=P. tenne Michx. fluitans Raf. ex Jacks\*. l.c. (Polygonum †fluitans Eaton, Man. ed. 5, 338. 1829). Eastern North America=P. amphibium Linn., var. stipulaceum Colem., f. fluitans (Eaton) Fernald.

natans Raf. ex Jacks\*. l.c. (Polygonum natans Eaton). Asia=

CNOPOS Raf. Fl. Tellur. 3:13. 1836 [1837], descr.=Polygonum Linn.

ramosissimus Raf. l.c., descr. (Polygonum ramosissimum Michx.). Eastern North America.

COCOLOBA Raf. Fl. Tellur. 2:34. 1836 [1837], descr.=Cocco-

loba Linn.

#DIACTUS Raf. Fl. Ludovic. 30. 1817, descr., subgen. Polygonum Linn., sub Polygonum vernum Raf. = Polygonum

DIOCTIS Raf. Fl. Tellur. 3:15. 1836 [1837], descr.; New Fl. N. Am. 4:50. 1836 [1838], nom.=Polygonum Linn.

bicornis Raf. Fl. Tellur. l.c., nom. [Polygonum bicorne Raf.]. Louisiana.

equisetifolia Raf. 1.c., nom. [Polygonum equisetiforme Sibth.

& Sm.]. Mediterranean region. maculata Raf. 1.c., nom. [Polygonum maculatum Raf.]. Loui-

pensylvanica Raf. 1.c., nom. [Polygonum pensylvanicum

Linn.]. North America.

verna Raf. l.c., nom. [Polygonum vernum Raf.]. Louisiana.

#DIOCTUS Raf. Fl. Ludovic. 30. 1817, descr. sub Polygonum

vernum Raf., subgen. Polygonum Linn.=Polygonum Linn.

DISCOLENTA Raf. Fl. Tellur. 3:15. 1836 [1837], descr.; New
Fl. N. Am. 4:49. 1836 [1838], nom., nota=Polygonum
Linn. (Persicaria Adans., 1763).

 lapathifolia Raf. Fl. Tellur. 1.c., nom. (Polygonum lapathifolium Linn.);
 New Fl. N. Am. 4:49, 1836 [1838], nom.
 Europe, North America. (Persicaria lapathifolia S. F. Grav).

punctata Raf. New Fl. N. Am. 4:49. 1836 [1838], nom., nota, sub Peutalis scabra Raf. (Polygonum punctatum Ell.; Discolenta scabra Raf. Fl. Tellur. 3:15, 1836 [1837], non Raf. New Fl. N. Am. 4:48, 1836 [1838], fide Rafinesque). North America=Polygonum punctatum Ell. (Persicaria punctata

scabra Raf. Fl. Tellur. 3:15, nom., 16, descr., 1836 [1837]. North America=Discolenta punctata Raf. fide Raf. New Fl. N. Am. 4:48. 1836 [1838]=Polygonum punctatum Ell.

(Persicaria punctata Small).
scabra Raf. New Fl. N. Am. 4:48. 1836 [1838], descr., nom.
alt. Peutalis scabra Raf. Kentucky, Illinois=Polygonum
lapathifolium Linn. (Persicaria lapathifolia S. F. Gray).

ERIOGONUM Michx. †dioicum Raf. Herb. Raf. 38, 1833, nom.; New Fl. N. Am.

4:53. 1836 [1838], descr. Platte River. lateriflorum Raf. New Fl. N. Am. 4:53. 1836 [1838], descr.

Missouri, Arkansas.
#EUTRALIA Raf. Fl. Tellur. 3:46. 1836 [1837], descr., subgen. Rumex Linn.=Rumex Linn.
luxurians Raf. ex Jacks\*. Ind. Kew. 1:937. 1893 (Rumex luxurians Linn.). Europe or South Africa.

FAGOPYRUM Moench (1794), nom. conserv. (Helxine Linn.,

1753, p.p., sect. Polygonum Linn.).
cereale Raf. Fl. Tellur. 3:10. 1836 [1837], nom. (Polygonum fagopyrum Linn.). Eurasia.

chinense Raf. 1.c., nom. (Polygonum chinense Linn.). China. crassifolium Raf. 1.c., nom. (Polygonum crassifolium Murr.).

perfoliatum Raf. 1.c., nom. (Polygonum perfoliatum Linn.). India.

†GONONCUS Raf. New Fl. N. Am. 1:17. 1836, nom., nota; Fl. Tellur. 3:16. 1836 [1837], descr.=Polygonum Linn. undulatus Raf. Fl. Tellur. op. cit. 17, descr. New Jersey,

Pennsylvania, Delaware=Polygonum sp.

HELXINE Linn.=Polygonum Linn. arifolia Raf. Fl. Tellur. 3:94. 1836 [1837], descr. (Polygonum arifolium Thunb., non Linn.). Japan=Polygonum thunbergii Sieb. & Zucc.

cilinodis Raf. op. cit. 10, nom. [Polygonum cilinode Michx.].

North America.

convolvulus Raf. 1.c. nom. [Polygonum convolvulus Linn.]. North Temperate Zone.

dumetorum Raf. l.c., nom. [Polygonum dumetorum Linn.]. North Temperate Zone.

multiflora Raf. 1.c., nom. [Polygonum multiflorum Thunb.]

sagittata Raf. 1.c., nom., op. cit. 94, descr. (Polygonum sagittatum Linn.). Japan.

scandens Raf. I.c., nom. [Polygonum scandens Linn.]. Japan. HEPTARINA Raf. Fl. Tellur. 3:15. 1836 [1837], descr.=Polygonum Linn.

orientalis Raf. 1.c., nom. [Polygonum orientale Linn.]. Tropical Asia.

HEPTARINIA Raf. New Fl. N. Am. 4:48. 1836 [1838], nom.= praec

longifolia Raf. 1.c., nom. alt. Peutalis longifolia Raf. Pennsylvania.

\*orientalis Raf. 1.c., nom. [Polygonum orientale Linn.]. Tropical Asia.

KARKINETRON Raf. Fl. Tellur. 3:11. 1836 [1837], descr.= Muehlenbeckia Meissn. (1840), nom. conserv. (Calacinum Raf., 1837; Karkinetron Raf., 1837; Sarcogonum D. Don, 1839).

hastatum Raf. 1.c., descr. (Coccoloba sagittifolia Ortega; Polygonum acetosaefolium Vent.). Brazil=Muehlenbeckia

sagittifolia (Ortega) Meisn.

undulatum Raf. l.c., descr. (Polygonum injucundum Lindl. Bot. Reg. 15: t. 1250. 1829). Chile=Muehlenbeckia chilen-

sis Meisn. var. injucunda (Lindl.) Meisn. KUNOKALE Raf. Fl. Tellur. 3:12. 1836 [1837], descr.=Fagopyrum Moench. (1794), nom. conserv. (Helxine Linn., p.p., 1753).

carneum Raf. 1.c., descr. (Polygonum emarginatum Roth; Lindl. Bot. Reg. 23: t. 1065. 1827). India, China=Fagopyrum esculentum Moench.

LAPATHON Raf. New Fl. N. Am. 4:51. 1836 [1838], nom. [Lapathum Adans.] = Rumex Linn.

sylvaticum Raf. 1.c., descr. (Rumex sylvatica Raf.). Western

Kentucky.

LYONELLA Raf. Am. Monthly Mag. Crit. Rev. 2:266. 1818, nom. nov. Polygonella Michx.; op. cit. 3:99. 1818, nom. (Polygonella Michx.); Jour. Phys. Chim. Hist. Nat. 89: 259. 1819, nom. sub Lyonia Nutt.; Ann. Nat. Ann. Synop. 12. 1820, nom. sub Polygonum serotinum Raf.=Polygonella Michx. (1803).

LYONIA Raf. Med. Repos. II. 5:353. 1808; Jour. Bot. (Paris) 2:172. 1809, nom. nov. Polygonella Michx.=Polygonella Michx. (1803).

MENOPHYLA Raf. Fl. Tellur. 3:45. 1836 [1837], descr.= Rumex Linn.

lunaria Raf. 1.c., nom. (Rumex lunaria Linn.). Canary Islands.

polygama Raf. ex Jacks\*. Ind. Kew. 2:207. 1894 (Rumex polygamus Cav. Ic. 1:14. t. 22. 1791). Canary Islands = Rumex lunaria Linn.

MITESIA Raf. Fl. Tellur. 3:15. 1836 [1837], descr.; New Fl. N. Am. 4:47, 50. 1836 [1838], nom.=Polygonum Linn. (Persicaria Adans., 1763).
albiflora Raf. Fl. Tellur. 1.c., nom. Hab.?

divergens Raf. Fl. Tellur. 3:16. 1836 [1837], descr.; New Fl. N. Am. 4:48. 1836 [1838], nom. (Peutalis divergens Raf.). Kentucky.

floridana Raf. New Fl. N. Am. 4:47. 1836 [1838], nom. alt. Peutalis floridana Raf. Florida.

hirsuta Raf. Fl. Tellur. 3:15. 1836 [1837], nom.; New Fl. N. Am. 4:48. 1836 [1838], descr., sub Peutalis floridana Raf. (Polygonum hirsutum Walt.). Southeastern United States (Persicaria hirsuta Small).

ligularis Raf. New Fl. N. Am. 4:47. 1836 [1838], nom. alt. Peutalis ligularis Raf. Carolina.

montana Raf. Fl. Tellur. 3:15. 1836 [1837], nom. Hab.? punctata Raf. Fl. Tellur. 3:15. 1836 [1837], nom. (Polygonum punctatum Ell.). Southeastern United States (Persicaria punctata Small).

NAUCOREPHES Raf. Fl. Tellur. 2:34. 1836 [1837], descr.= Coccoloba Linn.

pubescens Raf. ex Jacks\*. Ind. Kew. 2:298. 1894 (Coccoloba pubescens Linn.). Tropical America.

punctata Raf. ex Jacks\*. 1.c. (Coccoloba punctata Linn.). West Indies=Coccoloba venosa Linn.

#PATIENTIA Raf. Fl. Tellur. 3:'46. 1836 [1837], descr.,

subgen. Rumex Linn.

†PEUTALIS Raf. Herb. Raf. 52. 1833, nom.; Fl. Tellur. 3:14. 1836 [1837], descr., nom. nov. Persicaria Adans.; New Fl. N. Am. 4:47, 50. 1836 [1838], nom.; Good Book 46. 1840, nom.=Polygonum Linn. (Persicaria Adans.).
\*crassifolia Raf. Herb. Raf. 52. 1833, nom. Rocky Mountains

or Oregon.

\*divaricata Raf. l.c., nom. Rocky Mountains or Oregon.

divergens Raf. New Fl. N. Am. 4:48. 1836 [1838], descr. Kentucky.

floridana Raf. op. cit. 47, descr. Florida. glomerata Raf. op. cit. 49, descr. Pennsylvania and Virginia. heterophyla Raf. 1.c., descr. Alleghany Mountains of Vir-

hydropiper Raf. Fl. Tellur. 3:14. 1836 [1837], nom. [Polygonum hydropiper Linn.]. Europe, North America.

incana Raf. 1.c., nom. [Polygonum incanum W. F. Schmidt].

Europe=Polygonum lapathifolium Linn.
ligularis Raf. New Fl. N. Am. 4:47. 1836 [1838], descr.
Appalachian Mountains of Carolina, Iron Mountains.
linearis Raf. Fl. Tellur. 3:16. 1836 [1837], descr. Carolina

to Florida.

longifolia Raf. New Fl. N. Am. 4:48. 1836 [1838], descr.
Alleghany Mountains of Pennsylvania.
minus Raf. Fl. Tellur. 3:14. 1836 [1837], nom. [Polygonum]

minus Huds.]. Europe. nodosa Raf. 1.c., nom. [Polygonum nodosum Pers.]. Europe,

North America = Polygonum lapathifolium Linn. palustris Raf. New Fl. N. Am. 4:50. 1836 [1838], descr.

Vermont to New Jersey.
persicaria Raf. Fl. Tellur. 3:14. 1836 [1837], nom. [Poly-

gonum persicaria Linn.]. Europe, North America. polystachya Raf. New Fl. N. Am. 4:50. 1836 [1838], descr.

Pennsylvania to Kentucky.

Pennsylvania to Kentucky.

punctata Raf. op. cit. 49, nom. nov. Discolenta scabra Raf.;
Fl. Tellur. 3:16. 1836 [1837], nom. North America = Polygonum punctatum Ell. (Persicaria punctata Small).

scabra Raf. op. cit. 48, descr. Kentucky, Illinois = Polygonum lapathifolium Linn. (Persicaria lapathifolia S. F. Gray).

\*PHYLEPIDUM Raf. New Fl. N. Am. 1:51. 1836, nom. = seq.
PHYLLEPIDUM Raf. Med. Repos. II. 5:356. 1808, descr.; Jour.

Bot. (Paris) 1:218. 1809, descr.; Speech. Sci. 1:86. t. 4.
1814, descr.; Am. Monthly Mag. Crit. Rev. 2:173. 1818, nom.; Fl. Tellur. 3:41. 1836 [1837], descr. = Delopyrum Small (1913) = Polygonella Michx. (1803) fide Pennell in lit.

squamosum Raf. Fl. Tellur. 3:41. 1836 [1837], descr. Maryland = Phyllepidum squarrosum Raf. = Polygonella articulata (Linn.) Meisn. (Delopyrum articulatum Small).

(Linn.) Meisn. (Delopyrum articulatum Small).

squarrosum Raf. Med. Repos. 1.c., descr.; Jour. Bot. (Paris),
1.c.; Speech. Sci. 1:87. t. 4. 1814, descr.; Gerard, Bull. Torr.
Bot. Club 12:37. 1885, nom. Maryland, near Baltimore—
Polygonella articulata (Linn.) Meisn. (Delopyrum articulatum Small) latum Small).

PLEUROSTENA Raf. Fl. Tellur. 3:12. 1836 [1837], descr., New Fl. N. Am. 3:41. 1836 [1838], descr.; op. cit. 4:47. 1836 [1838], nom. = Polygonum Linn.

serotina Raf. Fl. Tellur. l.c., descr. (Polygonum serotinum Raf.); New Fl. op. cit. 42, descr. Kentucky. Ex descr. = Polygonum aviculare Linn.

POGALIS Raf. Fl. Tellur. 3:15. 1836 [1837], descr.=Polygonum Linn.

barbata Raf. 1.c., nom. [Polygonum barbatum Linn.]. Tropical Asia.

tinctoria Raf. 1.c., nom. [Polygonum tinctorium Ait.]. tomentosa Raf. I.c., nom. [Polygonum tomentosum Willd.].
Tropical Asia.

POLYGONUM Linn.

angustifolium Raf. Fl. Tellur. 3:16. 1836 [1837], descr. New

Jersey and Virginia, seashores.

†arenarium Raf. Am. Monthly Mag. Crit. Rev. 2:120. 1817,
descr.; Meisn. in DC. Prodr. 14:98. 1856, nom., in syn. Long Island, New Jersey (Sandy Hook), seashores=Polygonum aviculare Linn. var. diffusum Meisn. fide Meisner. An Polygonum glaucum Nutt. (1818)? aviculare Linn.; Raf. Med. Fl. 2:65. 1830, descr.

var. diffusum Raf. 1.c., nom. erectum Raf. 1.c., nom. gracile Raf. 1.c., nom. linearifolium Raf. 1.c., nom. parvifolium Raf. 1.c., nom. prostratum Raf. 1.c., nom. rubrum Raf. 1.c., nom.

bicorne Raf. Fl. Ludovic. 29. 1817, descr. (Renouée 1 Rob. Voy. Louis. 3:366. 1807). Louisiana. crassicaule Raf. Fl. Tellur. 3:15. 1836 [1837], descr. Alle-

ghany Mountains.

dichotomum Raf. Med. Repos. II. 5:354. 1808, nom., Jour. Bot. (Paris) 2:173. 1809, nom. Central Atlantic United States.

\*drenarium Raf. Fl. Ludovic. 170. 1817, nom., sphalm.=P. arenarium Raf.

fastigiatum Raf. Fl. Tellur. 3:15. 1836 [1837], descr. Alleghany Mountains.

\*glaucum Raf. Chloris Aetn. 4. 1815, nom. Sicily.

\*hyssopifolium Raf. Atl. Jour. 1:16. 1832, descr. Ohio.
imbricatum Raf. Fl. Tellur. 3:16. 1836 [1837], descr. Kentucky.

inundatum Raf. Med. Repos. II. 5:359. 1808, descr.; Jour. Bot. (Paris) 1:225. 1809, descr. Delaware. maculatum Raf. Fl. Ludovic. 29. 1817, descr. (Renouée 2 Rob. Voy. Louis. 3:367. 1807). Louisiana. nudiflorum Raf. New Fl. N. Am. 4:51. 1836 [1838], descr.

Alabama.

\*pachistachyum Raf. Fl. Ludovic. 29. 1817, descr. (Renouée 3 Rob. Voy. Louis. 3:367. 1807). Louisiana. pachystachyum Raf. ex Jacks\*. Ind. Kew. 2:599. 1894=

praec.

punctatum Raf. Ann. Nat. Ann. Synop. 12. 1820, descr.; First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom. Ken-

tucky. rubricaule Raf. New Fl. N. Am. 4:51. 1836 [1838], descr.

Pennsylvania.

serotinum Raf. Ann. Nat. Ann. Synop. 12. 1820, descr.; First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom.; Herb. Raf. 61. 1833, nom. Kentucky.=Polygonella serotina (Raf.) House (Gonopyrum serotinum House; Polygonella americana Small).

setosum Raf. Med. Repos. II. 5:354. 1808, nom.; (Paris) 2:173. 1809, nom. Central Atlantic United States. squamosum Raf. Atl. Jour. 1:16. 1832, descr.; New Fl. N. Am. 4:50. 1836 [1838], descr. Western Kentucky.

vernum Raf. Fl. Ludovic. 30. 1817, descr. (Renouée 5 Rob. Voy. Louis. 3:367. 1807). Louisiana.

RHODOPTERA Raf. Fl. Tellur. 3:45. 1836 [1837], descr.= Rumex Linn.

rosea Raf. ex Jacks\*. Ind. Kew. 2:712. 1895 (Rumex roseus Linn.). Mediterranean region.

RUMEX Linn.

agrestis Raf. New Fl. N. Am. 4:52. 1836 [1838], descr. Europe and America=Rumex acetosa Linn.

angustatus Raf. op. cit. 53, descr. Sicily and Crete.

amplexicaulis Raf. 1c., descr. Eastern Europe.
\*bidentatus Raf. op. cit. 52, descr. Italy, Greece.
bidentulus Raf. ex Jacks\*. Ind. Kew. 2:764. 1895, sphalm.= R. bidentatus Raf.

\*hastatulus Raf. New Fl. N. Am. 4:52. 1836 [1838], descr. Europe, and Red River [of Arkansas-Louisiana]. hastulatus Raf. ex Jacks\*. Ind. Kew. 2:765. 1895 = R. hasta-

tulus Raf.

heterophylus Raf. New Fl. 1.c., descr. Appalachian Mountains of Virginia.

integrifolius Raf. 1.c., descr. Kentucky.

ludovicianus Raf. Fl. Ludovic. 30. 1817, descr. (Patience Rob. Voy. Louis. 3:368, 1807). Louisiana.

olitorius Raf. New Fl. N. Am. 4:53. 1836 [1837], descr. North America.

shultzii Raf. Med. Repos. II. 5:353. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. Central Atlantic United States. spurius Raf. 11.cc., nom. Central Atlantic United States.

sylvaticus Raf. Ann. Nat. Ann. Synop. 12. 1820, descr.; First Cat. Bot. Gard. Transylv. Univ. 15. 1824 nom.; Herb Raf. 61. 1833, nom.; New Fl. N. Am. 4:51. 1836 [1838], nom. in syn. Kentucky.

\*SOVARA Raf. Fl. Tellur. 3:45. 1836 [1837], nom., sphalm.=
Tovara Adans. (1763)=Polygonum Linn.

SPERMAULAXEN Raf. Fl. Tellur. 3:13. 1836 [1837], descr.;
New Fl. N. Am. 3:41. 1836 [1838], nom.=Polygonum Linn.

dichotomus Raf. Fl. Tellur. op. cit. 14, descr.; New Fl. N.

Am. 3:42. 1836 [1838]. descr., Florida.

STOPINACA Raf. Fl. Tellur. 3:11. 1836 [1837], descr., nom. nov. Polygonella Michx. (1803); New Fl. N. Am. 4:47. 1836 [1838], nom.=Polygonella Michx. (1803).

STOPINACA (continued).

parvifolia Raf. Fl. Tellur. 1.c., nom. (Polygonella parvifolia Michx.). Southeastern United States=Polygonella polygama (Vent.) A. Gray. SUNANIA Raf. Fl. Tellur. 3:95, 1836 [1837], descr.=Tovara

Adans. (1763)=Polygonum Linn.

filiformis Raf. l.c., descr. (Polygonum filiforme Thunb.). Japan=Polygonum virginianum Linn. var. filiforme (Thunb.) Nakai.

#TASOBA Raf. Fl. Tellur. 3:94. 1836 [1837], descr., subgen.

Helixine Linn.=Polygonum Linn. (Tracaulon Raf., 1837).

arifolia Raf. ex Jacks\*. Ind. Kew. 2:1038. 1895 (Polygonum arifolium Thunb.). Japan=Polygonum thunbergii Sieb.

& Zucc.

sagittata Raf. ex Jacks\*. 1.c. (Polygonum sagittatum sensu Thunb.). Japan=Polygonum sagittatum Linn.

TEPHIS Adans.; sensu Raf. Fl. Tellur. 3:11. 1836 [1837], descr. (Asicaria Neck.; Pedalium Adans., non Linn.)= Atraphaxis Linn.

frutescens Raf. 1.c., nom. [Polygonum frutescens Linn.] = Atraphaxis frutescens (Linn.) K. Koch. Siberia.

parvifolia Raf. l.c., nom. [Polygonum parvifolium Nutt.] = Polygonella polygama (Vent.) A. Gray. Eastern North America.

#TOMARIS Raf. Fl. Tellur. 3:46. 1836 [1837], descr., subgen. Rumex Linn

TOVARA Adans.; Raf. Fl. Tellur. 3:12. 1836 [1837], descr.= Polygonum Linn.

virginiana Raf. 1.c., nom. (Polygonum virginianum Linn.). Eastern North America.

TRACAULON Raf. Fl. Tellur. 3:13. 1836 [1837], descr.; New Fl. N. Am. 4:47. 1836 [1838], nom.=Polygonum Linn. arifolium Raf. 1c., descr. [Polygonum arifolium Linn.].

Eastern North America, Asia.
VIBONES Raf. Fl. Tellur. 3:45. 1836 [1837], descr.=Rumex

auratus Raf. 1.c., descr. Alps of Switzerland.

## CHENOPODIACEAE

ATRIPLEX Linn. \*cuneata Raf. Herb. Raf. 38. 1833, nom. Upper Missouri

(Mandan country)=Dakota.
†dioica Raf. Am. Monthly Mag. Crit. Rev. 2:119. 1817,
descr.; op. cit. 176. 1818, nom., nota; Fl. Ludovic. 170.
1817, nom.; Jour. Phys. Chim. Hist. Nat. 89:258. 1819, nom., nota (Atriplex hastata sensu Michx.). Long Island,

New Jersey=Atriplex hastata Linn. halimoides Raf. Am. Monthly Mag. Crit. Rev. 2:176. 1818, nom. (A. halimus sensu Pursh [Gronovius], non Linn.); Med. Fl. 2:198. 1830, nom. Virginia=Atriplex hastata

Linn. \*monoica Raf. Speech. Sci. 2:171. 1814, descr. Sicily= Atriplex monoica Moench (1802)=A. rosea Linn.

\*mucronata Raf. Am. Monthly Mag. Crit. Rev. 2:119. 1817, descr. (Atriplex patula auct. Am.); op. cit. 176. 1818, nom. (Atriplex laciniata sensu Pursh); Fl. Ludovic. 170. 1817, nom., sphalm. "macronata"; Jour. Phys. Chim. Hist. Nat. 89:258. 1819, nom., nota. (Atriplex patula sensu Michx.; A. arenaria Nutt.). Long Island, New Jersey— Atriplex hastata Linn.

torreyana Raf. Atl. Jour. 1:146. 1832, nom. (Atriplex s.n. Torr. Ann. Lyc. Nat. Hist. N. Y. 2:240. 1827, descr.), Platte River.

BELOTROPIS Raf. Am. Monthly Mag. Crit. Rev. 1:543. 1817,

nom. Long Island, New York, Ex nom. "sea grapes"= Salicornia Linn. CAKILE Linn.

\*longifolia Raf. Herb. Raf. 50. 1833, nom. Rocky Mountains or New Mexico.

\*riparia Raf. op. cit. 63, nom. Kentucky or Illinois.

CHENOPODIUM Linn. \*bonus Raf. Med. Fl. 2:208. 1830, nom. [Chenopodium bonushenricus Linn.]. Europe.

botryoides Raf. ex Moq. in DC. Prodr. 13(2):75. 1849, nom., in syn.=C. botrys Linn.

var. gracile Raf. ex Moq. 1.c., nom. in syn.
nigrum Raf. Atl. Jour. 1:146. 1832, nom. (Chenopodium
maritimum sensu Torr. Ann. Lyc. Nat. Hist. N. Y. 2:239.
1827, non Linn.). Canadian River (New Mexico or Oklahoma). = Suaeda nigra (Raf.) Macbr. (S. diffusa S. Wats., 1874; Dondia nigra Standl., 1918).

\*rugosum Raf. Med. Fl. 2:208. 1830, nom., nota [Chenopodium anthelminthicum sensu Ell.]. Southeastern and middle western United States=Chenopodium ambrosioides Linn.

simplex Raf. Atl. Jour. 1:146. 1832, nom. (Chenopodium hybridum var. ? simplex Torr. Ann. Lyc. Nat. Hist. N. Y.

2:237. 1827). Missouri River. CORISPERMUM Linn.

pilosum Raf. New Fl. N. Am. 4:46. 1836 [1838], descr. Florida.

\*CRITESIA Raf. Am. Monthly Mag. Crit. Rev. 1:453. 1817, nom. Long Island. Ex nom. "sea-grapes" = Salsola Linn.
\*DIPLOCEA Raf. Am. Monthly Mag. Crit. Rev. 1:453. 1817,

nom., nota, non Raf. (1818). Long Island. Ex nom. "sea grapes"=Salsola Linn.

EINADÍA Raf. Fl. Tellur. 4:121. 1836 [1838], descr.=Rhagodia R. Br. (1810).

linifolia Raf. 1.c., descr. (Rhagodia linifolia R. Br.). Australia.

ISGARUM Raf. Fl. Tellur. 3:46. 1836 [1837], descr.=? Salsola Linn.

didymum Raf. 1.c., descr. (Salsola didyma Lour.). East Africa. Gen. incert.; see Merrill, Trans. Am. Philos. Soc. II. 24(2):

KRANIKOFA Raf. Princ. Somiol. 30. 1814, nom. nov. Kras-cheninnikovia Gueldenst. (1772) = Eurotia Adams. (1763).

\*KRANIKOVIA Raf. Fl. Tellur. 1:86. 1836 [1837], nom. nov. Krascheninnikovia Gueldenst.=praec. \*KRASCHENIKOFIA Raf. Fl. Tellur. 1:92. 1836 [1837],

nom. = praec

\*KRASCHENINIKOFIA Raf. Fl. Tellur. 1:86. 1836 [1837] nom.=Krascheninnikovia Gueldenst.=praec.

\*KRASCHENNIKOFIA Raf. Princ. Somiol. 30. 1814, nom.=

Krascheninnikovia Gueldenst. (1772) = praec. \*KRASNIKOVIA Raf. Fl. Tellur. 1:92, 1836 [1837], nom. nov.

Krascheninnikovia Gueldenst. (1772) = praec.

OFAISTON Raf. Fl. Tellur. 3:46. 1836 [1837], descr.

paucifolium Raf. 1.c., descr. (Salsola monandra Pallas). Caspian region=Ofaiston monandrum (Pallas) Moq.

SALICORNIA Linn. \*marginata Raf. Herb. Raf. 69. 1833, nom. Long Island, New

Jersey, Chesapeake Bay. SALSOLA Linn.

\*foliosa Raf. Herb. Raf. 69. 1833, nom. Long Island, New

Jersey, Chesapeake Bay. SARCATHRIA Raf. Fl. Tellur. 3:47. 1836 [1837], descr.= Salicornia Linn.

ambigua Raf. I.c., nom. (Salicornia ambigua Michx.). Eastern North America—Salicornia perennis Mill.

indica Raf. 1.c., nom. (Salicornia indica Willd.). India=Arthrocnemum indicum (Willd.) Moq.

procumbens Raf. 1.c., nom. (Salicornia procumbens Sm.) Europe=Salicornia europea Linn. radicans Raf. l.c., nom. (Salicornia radicans Sm.). Europe=

Salicornia perennis Mill.

strobilacea Raf. l.c., nom. (Salicornia strobilacea Delile).
Egypt=Halopeplis perfoliata (Forsk.) Bunge.

virginica Raf. 1.c., nom. (Salicornia virginica Linn.). Virginia=Salicornia europea Linn.

TRIKALIS Raf. Fl. Tellur. 3:47. 1836 [1837], descr.=Suaeda Forsk. (1775), nom. conserv. (Dondia Adans., 1763; Lerchea Ruell., 1774).

triflora Raf. 1.c., nom., nota [Salsola trigyna Willd.]. Eurasia=Suaeda altissima Pallas.

## AMARANTHACEAE

ACNIDA Linn. ellioti Raf. New Fl. N. Am. 1:54. 1836, descr. (Acnida cannabina sensu Ell.). Carolina to Florida=Acnida cannabina Linn.

†obtusifolia Raf. Herb. Raf. 69. 1833, nom.; New Fl. N. Am. 1.c., descr. (Acnida cannabina sensu Michx.). Long Island, New Jersey, Chesapeake Bay=Acnida cannabina Linn.

var. procera Raf. New Fl. N. Am. l.c., descr. pumila Raf. l.c., descr.

retusa Raf. l.c., descr.
salicifolia Raf. Am. Monthly Mag. Crit. Rev. 2:43. 1817,
descr.; Fl. Ludovic. 169. 1817, nom.; Herb. Raf. 69.
1833, nom.; New Fl. N. Am. 1:54. 1836, descr. Long
Island, New Jersey, Chesapeake Bay, Ohio=Acnida cannabina Linn.

\*ADOCETON Raf. Am. Monthly Mag. Crit. Rev. 1:438. 1817, descr.=Adoketon Raf.=Alternanthera Forsk. (1775).

\*maritimum Raf. l.c., descr., Sicily.

\*saxatile Raf. l.c., descr.; Fl. Ludovic. 168. 1817, nom. Sicily.

†ADOKETON Raf. New Fl. N. Am. 1:51, nom., 65, descr., 1836; op. cit. 4:46. 1836 [1838], nom.; Good Book 44. 1840, nom.=Adoceton Raf. (1817)=Alternanthera Forsk. (1775). maritimum Raf. ex Durand et Jacks\*. Ind. Kew. Suppl. 1:467, 1902.

saxatile Raf. New Fl. N. Am. 1:65. 1836, descr.; op. cit. 4:46. 1836 [1838], nom. (Illecebrum alsinefolium Scop.).

Sicily, Spain.

uniflorum Raf. l.c., descr. Unaka Mountains, North Carolina. AERUA Juss. (1789) = Aerva Forsk. (1775), nom. conserv. (Ouret Adans., 1763). tomentosa Raf. Fl. Tellur. 3:42. 1836 [1837], nom. (Celosia

lanata Linn.). India=Aerva lanata (Linn.) Juss.

AMARANTHUS Linn.

diacanthus Raf. Fl. Ludovic. 31. 1817, descr. (Arrache ou epinard du tropique Rob. Voy. Louis. 3:372. 1807); Med. Fl. 2:190. 1830, nom. Louisiana=Amaranthus spinosus Linn.

leucanthus Raf. Fl. Ludovic. 32. 1817. descr. (Amaranthus albus Rob. op. cit. 374). Louisiana=A. graecizans Linn.

 pumilus Raf. Med. Repos. II. 5:360. 1808, descr. (pumilis);
 Jour. Bot. (Paris) 1:228. 1809, descr.; Am. Monthly Mag. Crit. Rev. 4:194. 1819, nom., nota; Med. Fl. 2:190. 1830, nom.; Herb. Raf. 69. 1833, nom.; Life of Travels 15. 1838, nom. Long Island, New Jersey, Chesapeake Bay.

AMBLOGYNA Raf. Fl. Tellur. 3:42. 1836 [1837], descr.=

Amaranthus Linn.

polygonoides Raf. 1.c., nom. (Amaranthus polygonoides Linn.)

Southeastern United States to South America.

BELUTTA Raf. Fl. Tellur. 3:39. 1836 [1837], descr. = Allmania R. Br. 1832, nom.; Wight, Hook. Jour. Bot. 1:226. 1834, descr.; Endl. Gen. 304. 1837, nom.

peduncularis Raf. 1.c., descr. (Celosia nodiflora Linn.). Suma-

tra=Allmania nodiflora (Linn.) R. Br.

sessilis Raf. 1.c., descr. (Celosia nodiflora Linn.; Amarantus humilis foliis oppositis Burm. Thes. Zeyl. 17. t. 5. f. 2. 1737). Ceylon, India=Allmania nodiflora (Linn.) R. Br.

BLUTAPARON Raf. New Fl. N. Am. 4:45. 1836 [1838],

descr.=Philoxerus R. Br. (1810).

brevislorum Raf. 1.c., descr. (Illecebrum vermiculatum sensu Michx.); Aut. Bot. 16, 151. 1840, nom. Florida=Philoxerus \*vermicularis (Linn.) Beauv. Fl. Oware Benin 2:65. 1818.

repens Raf. op. cit. 46, descr. (Illecebrum vermiculatum Linn.). Guiana, Brazil=Philoxerus vermicularis (Linn.) Beauv.

\*BOZEA Raf. Med. Repos. III. 2:345. 1811, nom., sphalm.= Bosea Linn.

\*yervamora Raf. l.c., nom.=Bosea yervamora Linn.

CADELARIA Raf. Fl. Tellur. 3:39. 1836 [1837], descr. (Cadelari Adans.)=Centrostachys Wall. (1824)=Achyranthes

\*argentea Raf. Aut. Bot. 154. 1840, descr. (Achyranthes

argentea Lam.). South Africa=A. aspera Linn.
indica Raf. Fl. Tellur. 3:39. 1836 [1837], descr. IndoMalaysia=Achyranthes indica Mill. (Centrostachys indica Standl.)

punctata Raf. 1.c., descr. (Achyranthes paniculata Forsk.).
Arabia=Celosia caudata Vahl.

sicula Raf. l.c., descr. (Amaranthus spicatus perennis Bocc. Ic. Descr. Pl. Sicil. 16. f. 9. 1674); Aut. Bot. 153. 1840, descr. Sicily, North Africa=Achyranthes sicula Roth=

A. aspera Linn. CARAXERON Vaill.; Raf. Fl. Tellur. 3:38. 1836 [1837], descr.= Iresine P. Browne (1756), nom. conserv. (Cruzeta Loefl.,

brasiliensis Raf. 1.c., nom. (Gomphrena vermicularis Linn.). Brazil=Philoxerus vermicularis (Linn.) Beauv.

conicus Raf. 1.c., nom. (Philoxerus conicus R. Br.). tralia=Gomphrena conica Spreng.=Iresine conica (R. Br.) Mog.

diffusus Raf. 1.c., nom. (Philoxerus diffusus R. Br.). Australia=Gomphrena diffusa Spreng.=Iresine brownii Moq.

vermicularis Raf. 1.c., nom. (Gomphrena vermicularis Linn.). Tropical America=Philoxerus vermicularis (Linn.) Beauv.

CELOSIA Linn.

\*cordata Raf. Aut. Bot. 151. 1840, descr. India.

\*flexuosa Raf. I.c., descr. Asia.
\*pumila Raf. I.c., descr. Florida.
\*rosea Raf. op. cit. 152, descr. Ceylon.
CODIVALIA Raf. Fl. Tellur. 3:40. 1836 [1837], descr. (Pupal Adans.) = Pupalia Juss. (1803), nom. conserv. (Pupal Adans., 1763; Cadelari Medic. 1787; Syama Jones, 1795). lappacea Raf. ex Jacks\*. Ind. Kew. 1:577. 1893 (Achyranthes

lappacea Linn.). India=Pupalia lappacea (Linn.) Juss.

patula Raf. ex Jacks\*. 1.c. (Achyranthes patula Linn. f.). India=Pupalia lappacea (Linn.) Juss.

COILOSPERMA Raf. Fl. Tellur. 3:43. 1836 [1837], descr.=
Deeringia R. Br. (1810).

cordata Raf. 1.c., descr. (Celosia baccata Retz.). India = Deeringia amaranthoides (Lam.) Merr. (D. baccata Moq.; D. celosioides R. Br.).

DIMEIANDRA Raf. Neogen. 2. 1825, descr.=Amaranthus Linn.

DIMEIANTHUS Raf. Fl. Tellur. 3:41. 1836 [1837], descr. (Bliton Adans.) = Amaranthus Linn.

\*graecizans Raf. ex Moq. in DC. Prodr. 13(2):264. 1864,

nom. in syn.=Amaranthus graecizans Linn.

ECLOTORIPA Raf. Fl. Tellur. 3:40. 1836 [1837], descr.= Digera Forsk. (1775)

annua Raf. l.c., descr. [Achyranthes muricata Linn.]. Arabia, Moluccas=Digera muricata (Linn.) Mart.

fruticosa Raf. l.c., descr. Egypt [Achyranthes muricata Linn.]

=Digera muricata (Linn.) Mart.

EUXOLUS Raf. Fl. Tellur. 3:42. 1836 [1837], descr.=Amaranthus Linn.

deflexus Raf. I.c., nom. (Amaranthus deflexus Linn.). Europe. EVERION Raf. Sylva Tellur. 124. 1838, descr.=Froelichia Moench (1794).

interrupta Raf. 1.c., descr. (Gomphrena interrupta Linn.; Celosia procumbens Jacq.). West Indies=Froelichia interrupta (Linn.) Moq.

GOMPHRENA Linn.

\*ciliata Raf. Aut. Bot. 152. 1840, descr. (Gomphrena globosa auct.). East Indies = Gomphrena globosa Linn.

\*lanceolata Raf. l.c., descr. Brazil.

GONUFAS Raf. Sylva Tellur. 124. 1838, descr.=Celosia Linn. paniculata Raf. 1.c., descr. (Celosia paniculata auct., non Linn.). West Indies = Celosia nitida Vahl.

HYPARETE Raf. Fl. Tellur. 3:43. 1836 [1837], descr.=Hermbstaedtia Reichb. (1828).

glauca Raf. op. cit., descr. (Celosia glauca Wendl.). South Africa=Hermbstaedtia glauca (Wendl.) Reichb. LEPIPHAIA Raf. Aut. Bot. 199. 1840, nom. nov. Nevrolis Raf.; Pennell, Bull. Torr. Bot. Club 48:95. 1921, nom.=Celosia

Linn. LOPHOXERA Raf. Fl. Tellur. 3:42. 1836 [1837], descr.=

Celosia Linn. caudata Raf. l.c., nom. (Celosia caudata Vahl). Arabia.

comosa Raf. 1.c., nom. (Celosia comosa Retz.). Pantropic =Celosia cristata Linn.

paniculata Raf. l.c., nom. (Celosia paniculata Linn.). West Indies = Celosia nitida Vahl.
polygonoides Raf. l.c., nom. (Celosia polygonoides Retz.). India.

racemosa Raf. 1.c., nom. (Celosia trigyna Linn.). Tropical Africa

\*NEVROLA Raf. Aut. Bot. 150. 1840, nom. sub Nevrolis Raf.

NEVROLIS Raf. Aut. Bot. 150. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:95. 1921, nom.=Celosia Linn. fuscata Raf. l.c., descr. (Celosia virgata hort.); Pennell, l.c., nom. "Borneo or Moluccas?" [South America]=Celosia virgata Jacq.

NINANGA Raf. Fl. Tellur. 3:76. 1836 [1837], descr.=Froelichia Moench. (1794).

bicolor Raf. op. cit. 77, nom. (Gomphrena perennis Linn.; Sims, Bot. Mag. 53: t. 2614. 1826). Argentina. interrupta Raf. 1.c., nom. (Gomphrena interrupta Linn.; Celosia procumbens Jacq.). Mexico=Froelichia interrupta (Linn.) Moq.

\*OPLOTECA Raf. New Fl. N. Am. 4:46. 1836 [1838], nom.= Oplotheca Nutt. (1818)=Froelichia Moench (1794).

PENTRIUS Raf. Fl. Tellur. 3:42. 1836 [1837], nom., nota, sub Dimeianthus Raf. (Type Amaranthus oleraceus Linn.) =Amaranthus Linn.

PENTRIUS (continued).

oleraceus Raf. ex Jacks\*. Ind. Kew. 2:462. 1894 (Amaran-

thus oleraceus Linn.). Asia.
†STEIREMIS Raf. New Fl. N. Am. 1:51. 1836, nom.; Fl. Tellur. 3:40. 1836 [1837], descr.; New Fl. N. Am. 4:45. 1836 [1838], nom. (Stereimis); Aut. Bot. 154. 1840, nom. (Stereimis) = Alternanthera Forsk. (1775). ciliata Raf. New Fl. N. Am. 4:45. 1836 [1838], descr.; Aut.

Bot. 154. 1840, nom. (Illecebrum polygonoides auct.).

Georgia, Florida, Louisiana=Alternanthera polygonoides (Linn.) R. Br. ficoidea Raf. Fl. Tellur. 3:41. 1836 [1838], descr. (Stereimis ficoidea Raf.; Illecebrum ficoideum auct.; Achyranthes ficoidea auct.). Carolina, Florida, West Indies=Alternanthera ficoidea (L.) R. Br.

\*globosa Raf. 1.c., descr., nom. nov. provis. S. repens Raf. West Indies=Alternanthera achyrantha (Linn.) R. Br.

\*heterophylla Raf. Aut. Bot. 154. 1840, descr. (Achyranthes axillaris sensu Sieber). Egypt=Alternanthera sp. repens Raf. Fl. Tellur. 3:41. 1836 [1837], descr. (Achyranthes repens Linn.; Gomphrena polygonoides auct.; Illecebrum polygonoides auct.). Carolina, Georgia, West Indies=Alternanthera achyrantha (Linn.) R. Br. sessilifolia Raf. l.c., descr.; New Fl. N. Am. 4:45. 1836

[1838], nom. Spain, Africa = Alternanthera sp.

\*STEREIMIS Raf. Med. Fl. 2:266. 1830. nom., nota=Steiremis

Raf. (1837) = Alternanthera Forsk. (1775).

\*ficoidea Raf. 1.c., nom. [Illecebrum ficoideum auct.; Achyranthes ficoidea auct.]. Carolina, Florida, West Indies=Alternanthera ficoidea (Linn.) R. Br.

\*repens Raf. l.c., nom. [Achyranthes repens Linn.]. Southeastern United States=Alternanthera achyrantha (Linn.)

\*vermicularis Raf. l.c. (sphalm. "vermicularie"), nom. (Achyranthes \*vermicularis Ell. Sketch 1:310. 1817]. Southeastern United States=Philoxerus vermicularis (Linn.) Beauv.

URETIA Raf. Fl. Tellur. 3:40. 1836 [1837], descr., nom. nov. Ouret Adans. (1763) = Aerva Forsk. (1775), nom. conserv.

(Ouret Adans., 1763).

alternifolia Raf. ex Jacks\*. Ind. Kew. 2:1150. 1895 (Achyranthes alternifolia Linn.) = Digera alternifolia (Linn.) Aschers. (D. arvensis Forsk.).

WADAPUS Raf. Fl. Tellur. 3:77. 1836 [1837], nom. (Type, Gomphrena arborescens Linn. f.). Brazil=Gomphrena Linn.

\*\*TXERANDRA Raf. New Fl. N. Am. 1:46, 51. 1836, nom.; Fl. Tellur. 3:43. 1836 [1837], descr.=Iresine P. Browne (1756), nom. conserv. (Cruzeta Loefl., 1758).

celosioides Raf. Fl. Tellur. 1.c., nom. (Iresine celosioides Linn.). Southeastern United States=Iresine celosia Linn.

Indies=Iresine angustifolia Euphr.

elatior Raf. 1.c., nom. (Iresine elatior L. C. Rich.). West Indies=Iresine angustifolia Euphr.

#### NYCTAGINACEAE

\*ALIONIA Raf. Fl. Tellur. 1:54. 1836 [1837], nom.=Allionia Loefl. (1758).

\*AXIANA Raf. Ann. Gén. Sci. Phys. 6:88. 1820, nom. nov. Axia Lour.=Boerhavia Linn.; see Merrill, Trans. Am. Philos. Soc. II. 24(2): 150. 1935.

BOERHAVIA Linn. \*atomaria Raf. Aut. Bot. 40. 1840, descr. (B. erecta Linn.).

Florida=Boerhavia erecta Linn.

\*squamata Raf. l.c., descr. (B. diffusa herb. Baldw., non Linn.). Florida.=B. caribea Jacq.

CALYMENIA Pers.=Oxybaphus L'Hérit. (1797)=Allionia

Loefl.

\*granulata Aut. Bot. 15. 1840, descr. Alabama, Florida= Allionia albida Walt.

NEEANIA Raf. Princ. Somiol. 30. 1814, nom. nov. Neea Ruiz & Pavon; Fl. Tellur. 1:86. 1836 [1837], nom. (Neea Ruiz & Pavon).

#PLETERINA Raf. Aut. Bot. 41. 1840, descr., subgen. Boerhavia Linn. (Type Boerhavia arborescens Lag. & Rodr.)=

Pisonia Linn. #SALIUNCA Raf. Aut. Bot. 40. 1840, descr., subgen. Boerhavia

Linn. (Type Boerhavia scandens Linn.).

#TALUDAMA Raf. Aut. Bot. 40. 1840, descr. subgen. Boerhavia Linn. (Type Boerhavia diffusa Linn.).

TRIMISTA Raf. Aut. Bot. 12. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:92. 1921, nom.=Mirabilis Linn.

levigata Raf. l.c., descr. (Nyctago jalapae DC.); Pennell, l.c., nom. Tropical America = Mirabilis jalapa Linn.

#### PHYTOLACCACEAE

MANCOA Raf. Fl. Tellur. 3:56. 1836 [1837], descr.=Hilleria Voll. (1825) (Mohlana Mart., 1829).
secunda Raf. l.c., descr. (Rivina secunda Ruiz & Pavon, Fl. Peruv. 1:65. t. 102. 1798). Peru=Hilleria secunda (Ruiz & Pavon) H. Walt.

PIERCEA Mill.=Rivina Linn.

acuminata Raf. New Fl. N. Am. 4:13. 1836 [1838], nom. alt. Rivina acuminata Raf. Florida to Arkansas=Rivina humilis Linn.

\*humilis Raf. 1.c., in obs. nom. alt. Rivina humilis Linn.

Tropical America.

\*levis Raf. op. cit. 14, nom. alt. Rivina laevis Linn. Tropical America = Rivina humilis Linn., var. glabra Linn. obliquata Raf. op. cit. 13, 107, nom. alt. Rivinaa obliquata

Raf. North America=Rivina humilis Linn. RIVINA Linn.

acuminata Raf. New Fl. N. Am. 4:13. 1836 [1838], descr. (Rivina laevis sensu Muhl., Nutt.). Florida to Arkansas= Rivina humilis Linn.

\*americana Raf. Fl. Tellur. 3:56. 1836 [1837], nom. nov. R. octandra Linn. (R. dodecandra Jacq.). Troj Trichostigma octandrum (Linn.) H. Walt. Tropical America=

\*levis Raf. l.c., nom.=R. laevis Linn.

\*mollis Raf. op. cit. 107, nom. Mexico.
obliquata Raf. op. cit. 13, descr., 107, nota. Florida. (R.
humilis auct.)=Rivina humilis Linn.

SARCOCA Raf. Fl. Tellur. 3:55. 1836 [1837], descr.=Phytolacca Linn.

abyssinica Raf. ex Jacks\*. Ind. Kew. 2:803. 1895 (Phyto-lacca abyssinica Hoffm.). Africa=Phytolacca dodecandra dioica Raf. ex Jacks\*. 1.c. (Phytolacca dioica Linn.). South

America.

icosandra Raf. ex Jacks\*. l.c. (Phytolacca icosandra Linn.). Tropical America.

# **AIZOACEAE**

LAMPETIA Raf. Fl. Tellur. 3:34. 1836 [1837], descr.=Mollugo Linn.

nudicaulis Raf. 1.c., descr. (Mollugo nudicaulis Lam.; Alsine foliis ad radicem positis Burm. Thes. Zeyl. 14. t. 8. 1737). Ceylon, Africa = Mollugo nudicaulis Lam.

MEIAPINON Raf. Fl. Tellur. 3:32. 1836 [1837], descr.=? Mol-

lugo Linn.

saginoides Raf. op. cit. 33, descr. Florida.

\*MESEMBRIANTHUS Raf. Fl. Tellur. 1:92. 1836 [1837], nom.

nov. Mesembryanthemum Linn.

MESEMBRYANTHUS Neck.; Raf. Princ. Somiol. 30. 1814, nom.; Anal. Nat. Tabl. Univ. 195. 1815, nom.; Chloris Actn. 6. 1815, nom.=Mesembryanthemum Linn.

\*cristallinus Raf. Chloris Aetn. 6. 1815, nom. (Mesembryanthemum crystallinum Linn.). Mediterranean region.

\*nodiflorus Raf. 1.c., nom. (Mesembryanthemum nodiflorum Linn.). Mediterranean region.

\*MESENBRYANTHUS Raf. Fl. Tellur. 1:86. 1836 [1837],

nom., sphalm.=praec. NEMALLOSIS Raf. Fl. Tellur. 3:34. 1836 [1837], descr.=

Mollugo Linn. erecta Raf. 1.c., descr. (Pharnaceum mollugo Linn.; Alsine crecta pentaphylla Burm. Thes. Zeyl. 13. t. 7. 1737). Ceylon=Mollugo oppositifolia Linn.; quoad syn. Burm.=

M. pentaphylla Linn. prostrata Raf. 1.c., descr. (Pharnaceum mollugo Linn.). India

= Mollugo oppositifolia Linn.

PLENCKIA Raf. Speech. Sci. 1:194. 1814, descr.; Précis.

Découv. Somiol. 1814, nom. (p. 4 of cover); Jour. Bot.

(Desv.) 4:277 (err. 177). 1814, nom.=Mollugo Linn.

setiflora Raf. Speech. Sci. Lc., nom. (Glinus setiflorus Forsk.).

Arabia=Mollugo setiflorus (Forsk.) Chiov. (Mollugo

hirta Thunb.).

RADIANA Raf. Specch. Sci. 1:88. 1814, descr.; Précis Découv. Somiol. 1814, nom. (p. 4 of cover); Jour. Bot. (Desv.) 4: 277 (err. 177). 1814, nom.=Cypselea Turp. (1806).

petiolata Raf. Specch. Sci. 1.c., descr. Santo Domingo= Cypselea humifusa Turp.

SESUVIUM Linn.

verrucosum Raf. New Fl. N. Am. 4:16. 1836 [1838], descr.;
Aut. Bot. 99. 1840, nom.; P. Wils. N. Am. Fl. 21:274.
1932. Arkansas. (S. sessile B. L. Robinson, 1897, non Pers. 1806)

\*SQUIBBIA Raf. New Fl. N. Am. 4:16. 1836 [1838], nom., sub

Sesuvium verrucosum Raf. = Sesuvium Linn.

\*maritima Raf. 1.c., nom. (Sesuvium pentandrum Ell.). Southeastern United States = Sesuvium maritimum (Walt.) Britton, Sterns & Poggenb.

#### PORTULACACEAE

CLAYTONIA Linn.

\*dilatata Raf. Aut. Bot. 20. 1840, descr. (Claytonia caroliniana Michx.). New England=C. caroliniana Michx. \*linearis Raf. 1.c., descr. Arkansas (C. media (DC.) Small,

EUTMON Raf. Atl. Jour. 1:177. 1833, descr.; Herb. Raf. 23. 1833, descr. = Talinum Adans. (1763).

napiforme Raf. 11.cc., descr. (Talinum napiforme DC.); Act. Soc. Linn. Bordeaux 6:267. 1834, nom. (Phemeranthus napiformis Raf.). Texas=Talinum napiforme DC

LEPTRINA Raf. Am. Monthly Mag. Crit. Rev. 4:192. 1819, nom.; Jour. Phys. Chim. Hist. Nat. 89:96. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 237. 1820, descr.; Ann. Gén. Sci. Phys. 5:349. 1820, nom.; Isis von Oken 1821, 2:978. 1821, nom.; Good Book 21, 22. 1840, nom.=? Montia Linn. 10

autumnalis Raf. Jour. Phys. Chim. Hist. Nat. 89:96. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 237. 1820, descr.

Ohio=? Montia fontana Linn.

PHEMERANTHUS Raf. Med. Repos. II. 5:350. 1808, nom.; Jour. Bot. (Paris) 2:167. 1809, nom.; Speech. Sci. 1:86. 1814, descr.; Am. Monthly Mag. Crit. Rev. 4:193. 1819, nom., nota (Talinum teretifolium Pursh); Jour. Phys. Chim. Hist. Nat. 89:259. 1819, nom., nota (Talinum teretifolium

Pursh)=Talinum Adans. (1763).

\*napiformis Raf. Atl. Jour. 1:177. 1833, nom. (Eutmon napiforme Raf.); Herb. Raf. 23. 1833, nom. (Talinum napiforme DC.). Texas=Talinum napiforme DC.

teretifolius Raf. Med. Repos. II. 5:350. 1808, nom., nota

Jour. Bot. (Paris) 2:167. 1809, nom., nota (Talinum teretifolium Pursh); A. Gray, Am. Jour. Sci. 40:226. 1841, nom.; Speech. Sci. 1:86. 1814, descr.; Am. Monthly Mag. Crit. Rev. 2:174. 1818, nom., nota (Talinum teretifolium Pursh); op. cit. 266. 1818, nom. (Talinum teretifolium Pursh); Life of Travels 22. 1836, nom.; Aut. Bot. 175. 1840, nom. (Talinum teretifolium Pursh). Pennsylvania to Carolina and Alabama=Talinum teretifolium Pursh.

\*PHEMORANTHUS Raf. Act. Soc. Linn. Bordeaux 6:267. 1834,

nom.=praec.

\*napiformis Raf. 1.c., nom. = Phemeranthus napiformis Raf. =

Talinum napiforme DC.

TALINIUM Raf. Am. Monthly Mag. Crit. Rev. 2:174, 175. 1818, nom. nov. Talinum Adans.; op. cit. 4:193. 1819, nom. (Talinum Adans.); Jour. Phys. Chim. Hist. Nat. 89: 259. 1819, nom. (Talinum Adans.) = Talinum Adans. (1763).

\*teretifolium Raf. Am. Monthly Mag. Crit. Rev. 4:193. 1819, nom. (Talinum teretifolium Pursh); Jour. Phys. Chim. Hist. Nat. 89:259. 1819, nom. Eastern North America.

#### BASELLACEAE

GANDOLA Linn.; Raf. Sylva Tellur. 60. 1838, descr. (Gandola

Rumph., 1747) = Basella Linn.

\*alba Raf. 1.c., nom., nota (Gandola I alba Rumph. Herb.
Amb. 5:417. 1747). Moluccas = Basella alba Linn. = B. rubra Linn.; see Merrill, Interpret. Rumph. Herb. Amb. 218. 1917.

nigra Raf. 1.c., descr. (Basella nigra Lour.). Indo-China (Annam)=Basella rubra Linn.; see Merrill, Trans. Am.

Philos. Soc. II. 24(2):152, 1935.

10 S. Watson, Bibl. Ind. N. Am. Bot. 1:122. 1878, placed Leptrina as a doubtful synonym of Elatine Linn. of the Elatinaceae. The description is not good for either Montia or Elatine.

# CARYOPHYLLACEAE

ADENARIUM Raf. Am. Monthly Mag. Crit. Rev. 2:266. 1818, nom., nota (Arenaria peploides Linn.); op. cit. 4:193. 1819, nom., nota (Arenaria peploides Linn.); Jour. Phys. Chim. Hist. Nat. 89:259. 1819, nom., nota (Honkenya Ehrh., non Willd.); Act. Soc. Linn. Bordeaux 6:267. 1834, nom.; New Fl. N. Am. 1:62. 1836, descr.; Aut. Bot. 18. 1840, nom. (Honkenya peploides Ehrh.) = Arenaria Linn. 27timum Ref. New Fl. N. Am. 1:62. 1826, descr. (Heleschitz)

maritimum Raf. New Fl. N. Am. 1:62. 1836, descr. (Holosteum succulentum Linn.; Arenaria peploides auct. Am.). Atlantic shores of North America Arenaria peploides

Linn.

†peploides Raf. l.c., descr. (Arenaria peploides Linn.). Europe Arenaria peploides Linn.

\*ADMARIUM Raf. Am. Monthly Mag. Crit. Rev. 4:188. 1819. nom., sphalm.=praec.

\*celirosa Raf. Aut. Bot. 27. 1840, nom.=A. coeli-rosea Linn.

\*celirosa Raf. Aut. Bot. 27. 1840, nom.=A. coeli-rosea Linn.

=Lychnis coeli-rosea (Linn.) Desr. Mediterranean region.

\*cronarium Raf. Med. Repos. III. 2:339. 1811, nom., sphalm.

=Agrostemma coronaria Linn.=Lychnis coronaria (Linn.) Desr. Europe.

ALIFIOLA Raf. Aut. Bot. 24. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:92. 1921, nom. = Silene Linn.

dichotoma Raf. 1.c., nom. (Silene alata Raf.); Pennell, 1.c., nom. Kentucky.

\*floridana Raf. 1.c., descr. Florida.

AMORGINE Raf. New Fl. N. Am. 4:44. 1836 [1838], descr. Ex descr. = Siphonychia Torr. & Gray (1838), nom, conserv. (Buinalis Raf., 1838).

albescens Raf. l.c., descr.; Aut. Bot. 151. 1840, nom. Florida. Ex descr. = Siphonychia americana (Nutt.) Torr. & Gray. #ANEVRIPHIS Raf. Aut. Bot. 29. 1840, descr., subgen. Silene Linn.

ANYCHIA Michx.; Raf. New Fl. N. Am. 4:41. 1836 [1838], descr., nota; New Fl. N. Am. 4:43. 1836 [1838], sub A. fastigiata Raf., descr. = Paronychia Mill. (1754).

\*capillaris Raf. Aut. Bot. 153. 1840, nom., sphalm.=A. capillacea DC.=Paronychia canadensis (Linn.) Wood (Anychia canadensis B.S.P.).

conferta Raf. Atl. Jour. 1:16. 1832, descr. Western Kentucky = Paronyhia fastigiata (Raf.) Fernald.

divaricata Raf. New Fl. N. Am. l.c., descr., Aut. Bot. 152. 1840, nom. Alleghany Mountains, Kentucky=Paronychia fastigiata (Raf.) Fernald, var. pumila (Wood) Fernald (Paronychia montana (Niewl.) Pax & Hoffm.). †fastigiata Raf. First Cat. Bot. Gard. Transylv. Univ. 13.

1824, nom.; Atl. Jour. 1:16. 1832, descr.; New Fl. N. Am. 4:42. 1836 [1838], descr.; Aut. Bot. 152. 1840, nom. Kentucky=Paronychia fastigiata (Raf.) Fernald. filiformis Raf. ex Britton, Bull. Torr. Bot. Club 13:187. 1886,

nom. in syn. (Anychia capillacea DC.)=Paronychia cana-

densis (Linn.) Wood.

\*floridana Baldw. ex Raf. New Fl. N. Am. 4:40. 1836 [1838], nom. in syn. sub Buinalis floridana Raf. Florida.

lateralis Raf. Atl. Jour. 1:16. 1832, descr.; New Fl. N. Am.4:42. 1836 [1838], descr.; Aut. Bot. 152. 1840, nom. Kentucky=Paronychia fastigiata (Raf.) Fernald.

nudiflora Raf. New Fl. N. Am. 4:43. 1836 [1838] descr.; Aut. Bot. 153. 1840, nom. Florida.

\*patula Raf. First Cat. Bot. Gard. Transvlv. Univ. 13, 1824.

nom. Kentucky.
polygonoides Raf. Atl. Jour. 1:16. 1832, descr.; New Fl. N.
Am. 4:43. 1836 [1838], descr. sub A. fastigiata Raf. Alleghany Mountains=Paronychia fastigiata (Raf.) Fernald. #APLOMA Raf. Fl. Tellur. 2:53. 1836 [1837], descr., subgen.

Gypsophila Linn. (Type Gypsophila struthium Linn.). ARENARIA Linn.

†aristata Raf. Car. Nuov. Gen. Sp. Sicil. 75. 1810, descr.; Stat. Gen. Sicil. 28. 1810, nom.; Chloris Aetn. 9, 14. 1815, nom. Sicily.

connata Raf. Atl. Jour. 1:151. 1833, descr. Canada. flexuosa Raf. Atl. Jour. 1:151. 1832, descr. Saint Lawrence River near Lake Ontario.

\*heterophyla Raf. Aut. Bot. 18. 1840, descr. Arkansas.

imbricata Raf. Med. Repos. II. 5:361. 1808, descr.; Jour Bot. (Paris) 1:229. 1809, descr.; Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom. (Arenaria squarrosa Michx.). New Jersey=Arenaria caroliniana Walt.

sperguloides Raf. Atl. Jour. 1:154. 1832, descr.; Herb. Raf.

69. 1833, nom. Pennsylvania.

ARGYROCOMA Raf. New Fl. N. Am. 4:41. 1836 [1838], descr.

=Paronychia Mill. (1754).

\*đichotoma Raf. op. cit. 43, descr. sub A. imbricata Raf. (Achyranthes dichotoma Linn.; Illecebrum dichotomum Pers.); Aut. Bot. 16. 1840, nom. Virginia=Paronychia dichotoma (Linn.) Nutt.

imbricata Raf. l.c., descr.; Aut. Bot. 16, 152. 1840, nom. (Paronychia argyrocoma Nutt.; Anychia argyrocoma Michx.). Virginia, Carolina=Paronychia argyrocoma Michx.). Vir. (Michx.) Nutt.

ARROSTIA Raf. Car. Nuov. Gen. Sp. Sicil. 75. 1810, descr.; Fl. Tellur. 2:53. 1836 [1837], descr.=Gypsophila Linn. altissima Raf. Fl. Tellur. 2:54. 1836 [1837], descr. (Gyp-

sophila altissima Linn.). Siberia.

 dichotoma Raf. Car. Nuov. Gen. Sp. Sicil. 76. 1810, descr.;
 Stat. Gen. Sicil. 27. 1810, nom.; Chloris Aetn. 4. 1815, nom.; Fl. Tellur. 2:53. 1836 [1837], descr. Sicily. (Gypsophila arrostii Guss., 1826).

paniculata Raf. Fl. Tellur. 2:54. 1836 [1837], descr. (Gypsophila paniculata Linn.); Aut. Bot. 26. 1840, nom., nota.

Siberia.

\*parviflora Raf. Aut. Bot. 26. 1840, descr. Armenia or

ATOCION Adans.; Raf. Aut. Bot. 28. 1840, descr. = Silene Linn. \*armeria Raf. op. cit. 29, descr. [Silene armeria Linn.]; Fourr. Ann. Soc. Linn. Lyon II. 16:344. 1868. Europe.

\*armeroides Raf. l.c., descr. Kentucky, Alabama=praec. var. albiflora Raf. l.c., nom.

pauciflora Raf. l.c., nom.

uniflora Raf. l.c., nom.
\*latifolium Raf. First Cat. Bot. Gard. Transylv. Univ. 13.

1824, nom. Kentucky. \*miniatum Raf. Ann. Nat. Ann. Synop. 12. 1820, nom.; First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom.

Kentucky. BALLARION Raf. Am. Monthly Mag. Crit. Rev. 2:266. 1818, nom. nov. provis. (Micropetalon lanuginosum Pers.); op. cit. 4:189. 1819, nom.; Good Book 46. 1840. nom.=Stellaria Linn.

BIGELONIA Raf. Jour. Phys. Chim. Hist. Nat. 89:259. 1819, nom., sphalm.=Bigelowia Raf.=Stellaria Linn.

elongata Raf. ex Jacks\*. Ind. Kew. 1:302. 1893 (Stellaria elongata Nutt.). North America.

montana Raf. ex Jacks\*. l.c. (Arenaria seu Stellaria sp. Bigelow, New Engl. Jour. Med. Surg. 5:334. 1816, descr.). White Mountains of New Hampshire=Stellaria calycantha (Ledeb.) Bong.

BIGELOWIA Raf. Am. Monthly Mag. Crit. Rev. 1:442. 1817, descr.; op. cit. 2:266. 1818, nom., nota (Micropetalum lanu-ginosum Pers.); op. cit. 4:188, 193. 1819, nom., nota (Stel-laria elongata Nutt.); Fl. Ludovic. 169. 1817, nom. North America = Stellaria Linn.

montana Raf. op. cit. 1:442. 1817, descr. (Arenaria seu Stellaria sp. Bigel. New Engl. Jour. Med. Surg. 5:334. 1816, descr. White Mountains of New Hampshire=Stellaria

calycantha (Ledeb.) Bong.

BUINALIS Raf. New Fl. N. Am. 4:40. 1836 [1838], descr.; Good Book 46. 1840, nom.=Siphonychia Torr. & Gray (1838), nom. conserv. (Buinalis Raf., 1838).

floridana Raf. New Fl. 1.c., descr. (Herniaria americana herb. Collins; Anychia floridana herb. Baldw.); Aut. Bot. 16, 151. 1840, nom. Florida=Siphonychia americana (Nutt.) Torr. & Gray.

CERASTIUM Linn.

Dracteatum Raf. Précis Découv. Somiol. 36. 1814, descr.;

Jour. Bot. (Desv.) 4:269. 1814, descr. Pennsylvania.

fulvum Raf. Il.cc., descr. New Jersey, Pennsylvania, Vir-

fulvum Raf. Il.cc., descr. New Jersey, Pennsylvania, Virginia=C. vulgatum Linn.
nutans Raf. Il.cc., descr.; Am. Monthly Mag. Crit. Rev. 1:359. 1817, nom.; Am. Jour. Sci. 1:81. 1818, nom.; Am. Monthly Mag. Crit. Rev. 4:193. 1819, nom. (Cerastium glutinosum Nutt.); Jour. Phys. Chim. Hist. Nat. 89:259. 1819, nom. (Cerastium glutinosum Nutt.). Pennsylvania. (C. longipedunculatum Muhl., 1813, nom.).
pumilum Raf. Am. Monthly Mag. Crit. Rev. 2:266. 1818, nom. (Cerastium semidecandrum Linn.); Am. Jour. Sci. 1:81. 1818, nom.; Am. Monthly Mag. Crit. Rev. 1:358. 1817, nom. "purnilum," Pennsylvania. velutinum Raf. Med. Repos. II. 5:359. 1808, descr.; Jour. Bot. (Paris) 1:225. 1809, descr. Delaware, Pennsylvania. (C. oblongifolium Torr., 1824).

(C. oblongifolium Torr., 1824).

CHETROPIS Raf. Fl. Tellur. 3:80. 1836 [1837], descr.= Arenaria Linn.

setacea Raf. I.c., descr. (Alsine mucronata sensu Gouan III. 22. 1773; A. aristata Soland. ex Russell, Nat. Hist. Aleppo, ed. 2, 2:248. 1794). Syria, Italy.

DIANTHUS Linn.

†armerioides Raf. Med. Repos. II. 5:354. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom.; Précis Découv. Somiol. 36. 1814, descr.; Jour. Bot. (Desv.) 4:269. 1814; descr.; Am. Monthly Mag. Crit. Rev. 1:357. 1817, nom., nota (D. armeria sensu Barton); op. cit. 2:266, 344. 1818, nom., nota (D. armeria sensu Pursh); op. cit. 4:193. 1819, nom., nota (D. armeria sensu Nutt.). New Jersey=Dianthus armeria Linn.

dubius Raf. Car. Nuov. Gen. Sp. Sicil. 75. 1810, descr.; Stat. Gen. Sicil. 28. 1810, nom. Sicily.

EBRAXIS Raf. Aut. Bot. 29. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:92. 1921, nom. = Silene Linn.

virgata Raf. l.c., nom. (Silene antirrhina Linn.). Eastern

North America.

EVACTOMA Raf. Aut. Bot. 23. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:92. 1921, nom. = Silene Linn. stellata Raf. l.c., nom. (Cucubalus stellatus Linn.; Silene stellata Ait. f.); Pennell, l.c., nom. Eastern North America =

Silene stellata (Linn.) Ait. f.

EXEMIX Raf. Aut. Bot. 27. 1840, descr.; Pennell, Bull. Torr.

Bot. Club 48:92. 1921, nom.=Lychnis Linn.
grandiflora Raf. l.c., descr. (Lychnis grandiflora Jacq., L. coronata Thunb.); Pennell, l.c., nom. China=Lychnis coronata Thunb.

#GYMESIA Raf. Aut. Bot. 29. 1840, descr., subgen. Silene

#GYPSARIA Raf. Fl. Tellur. 2:53. 1836 [1837], descr. subgen. Gypsophila Linn. (Type Gysophila muralis Linn.). Eurasia. GYPSOPHILA Linn.

\*corymbosa Raf. Aut. Bot. 25. 1840, descr. Florida.

\*nudicaulis Raf. op. cit. 26, descr. Europe (Carpathian Mountains).

\*suffruticosa Raf. 1.c., descr. Europe (Carpathian Mountains). \*ternifolia Raf. Herb. Raf. 47, descr., 50, nom. 1833; Aut. Bot. 25. 1840, nom. Oregon.

HERNIARIA Linn.

\*laxa Raf. Aut. Bot. 151. 1840, descr. Podolia (Southwestern Russia) = Herniaria hirsuta Linn.

\*montana Raf. Chloris Aetn. 14. 1815, nom. Sicily.
nebrodensis Raf. Am. Monthly Mag. Crit. Rev. 1:440. 1817, descr.; Fl. Ludovic. 169. 1817, nom. Sicily.

HONCKENIA Raf. Am. Monthly Mag. Crit. Rev. 2:266. 1818, nom. (Arenaria peploides Linn.) = Honkenya Ehrh. (1788) = Arenaria Linn.

HONCKENYA Bartl. (1830) = Honkenya Ehrh. (1788) = Arenaria Linn.

\*maritima Raf. Aut. Bot. 18. 1840, nom. (Holosteum succulentum Linn.; Adenarium maritimum Raf.). North America = Arenaria peploides Linn.

ILLECEBRUM Linn. \*filiforme Raf. Aut. Bot. 153. 1840, descr. Western Europe.

\*lanatum Raf. 1.c., descr. Siberia.
\*spinosum Raf., 1.c., descr. Spain.

IXOCA Raf. Aut. Bot. 25. 1840, descr.; Pennell, Bull. Torr.
Bot. Club 48:92. 1921, nom.=Silene Linn.

tenella Raf. 1.c., nom. (Silene quadridentata Pers. ["4 dentata L."]); Pennell 1.c., nom., nota. Europe (Alps).

\*IXOCAULON Raf. Act. Soc. Linn. Bordeaux 6:264. 1834, nom., nota, iter. Merr. Proc. Am. Philos. Soc. 86:87. 1942, op. cit. 90, nom.=Silene Linn.

\*LAHAYEA Raf. New Fl. N. Am. 1:65. 1836, nom. nov. Hagea Pers. (1805) = Hagaea Vent. (1799) = Lahaya Roem. & Schult. (1819) = Polycarpaea Lam. (1792), nom. conserv. (Polia Lour., 1790).

\*fragilis Raf. Aut. Bot. 154. 1840, descr. (Polycarpaea fragilis Delile). Egypt.

\*memphitica Raf. 1.c., nom. (Polycarpaea memphitica Delile).
Egypt=Polycarpon indicum (Retz.) Merr. (Polycarpon loeflingiae Benth. & Hook. f.).

LYCHNIS Linn. \*nocturna Raf. Aut. Bot. 28. 1840, nom. sub Physocarpon vespertinum Raf., sphalm.=Lychnis noctiflora Schreb.=Silene noctiflora Linn. Europe.

MELARGYRA Raf. Fl. Tellur. 3:81. 1836 [1837], descr.= Spergularia J. & C. Presl (1819).

canadensis Raf. ex Jacks\*. Ind. Kew. 2:191. 1894 (Arenaria canadensis Pers.). North America=Spergularia canadensis (Pers.) G. Don.

media Raf. ex Jacks\*. 1.c. (Arenaria media Linn.). Europe, North America=Spergularia media (Linn.) C. Presl.

purpurea Raf. ex Jacks\*. l.c. (Arenaria purpurea Pers.). Spain=Spergularia purpurea (Pers.) G. Don.

rosea Raf. Fl. Tellur. 3:81. 1836 [1837], descr. Pennsylvania. rubra Raf. ex Jacks\*. l.c. (Arenaria rubra Linn.). Europe, North America=Spergularia rubra (Linn.) J. & C. Presl.

#MONILIX Raf. Atl. Jour. 1:151. 1833, nom., subgen. Arenaria Linn. (Type Arenaria connata Raf.).

#NESTELMESA Raf. Aut. Bot. 27. 1840, nom. subgen. Lychnis Linn. (Type Lychnis alpina Linn.). Labrador=Lychnis Linn.

OBERNA Adans.; Raf. Aut. Bot. 23. 1840, descr. (Behenantha Otth)=Silene Linn.

\*fabaria Raf. op. cit. 24. 1840, nom. [Silene fabaria sensu Bertol.]. Sicily, Crete.

\*nivea Raf. op. cit. 23, nom. (Silene nivea Otth; Cucubalus niveus Nutt.). Pennsylvania = Silene nivea Otth.

\*reticulata Raf. 1.c., descr. Siberia or northwestern America. OTITES Adans.; Raf. Am. Monthly Mag. Crit. Rev. 4:193. 1819, nom., nota; Act. Soc. Linn. Bordeaux 6:264. 1834, nom., nota; Aut. Bot. 25. 1840, descr. — Silene Linn. \*cuneifolia Raf. Aut. Bot. 25. 1840, descr. (Silene otites Sm.).

Europe=Silene otites Sm.
\*myrianthes Raf. l.c., descr. Siberia.
\*parviflora Raf. l.c., nom. [Silene parviflora Pers.]. Europe. \*sibirica Raf. l.c., nom [Silene sibirica Pers.]. Europe.

PARONYCHIA Mill. \*cuspidata Raf. Aut. Bot. 153. 1840, descr. (Illecebrum paronychia Linn.). Portugal=Paronychia argentea Lam.

PHYSOCARPON Neck.; Raf. Aut. Bot. 27. 1840, descr.= Lychnis Linn.

\*arvense Raf. l.c., descr. [Lychnis dioica Linn.]. Europe. \*capitatum Raf. op. cit. 28, descr. Germany. \*vespertinum Raf. l.c., descr. (Lychnis vespertina Sibth.). England, Germany.

PLAGIDIA Raf. New Fl. N. Am. 4:42. 1836 [1838], descr.=

Paronychia Mill. (1754) (Gastronychia Small, 1933).
rufa Raf. op. cit. 43, descr. (Anychia herniarioides Michx.?);
Aut. Bot. 16, 152. 1840, nom. Florida=Paronychia herniarioides (Michx.) Nutt. (Gastronychia herniarioides Small; Anychiastrum herniarioides Small).

PLECONAX Raf. Aut. Bot. 24. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:92. 1921, nom.=Silene Linn.
\*striata Raf. l.c., nom. (Silene conica Linn.). Europe.

\*QAERIA Raf. Aut. Bot. 153. 1840, nom. (Anychia "capillaris" sphalm.=A. capillacea DC.)=Queria Loefl. (1752).

\*canadensis Raf. l.c., nom. (Queria canadensis Linn.). New England to Kentucky=Anychia canadensis (Linn.) Britton, Sterns & Poggenb.

OUERIA Loefl.

\*fastigiata Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom. [Anychia fastigiata Raf.]. Kentucky=Paronychia fastigiata (Raf.) Fernald.

SAPONARIA Linn.

aetnensis Raf. Chloris Aetn. 9, 14. 1815, nom. (Saponaria caespitosa Bivona). Sicily.

\*cespitosa Raf. Statist. Gen. Sicil. 27. 1810, nom.; Specch. Sci. 1:9. 1815, nom. sub S. aetnensis Raf. = S. caespitosa Bivona. Sicily.

 sicula Raf. Speech. Sci. 2:7. 1814, descr. Sicily.
 villosa Raf. Fl. Ludovic. 93. 1817, descr. (Saponaria Rob. Yoy. Louis. 3:486. 1807); Med. Fl. 2:261. 1830, nom. Louisiana.

\*viscaria Raf. Med. Fl. 2:261. 1830, nom., sphalm. = Saponaria vaccaria Linn. North America.

SILENE Linn.

\*alata Raf. Aut. Bot. 24. 1840, nom., in obs. (Alifiola dichotoma Raf.). Kentucky.

\*catesbri Raf. Western Rev. Miscel. Mag. 2:95. 1819, nom. sphalm. Eastern North America=Silene catesbaei Walt.= S. virginica Linn.

\*fistulosa Raf. Western Minerva 41. 1821, nom., iter. Fox,

Science II. 12:213. 1900. Kentucky . \*furcata Raf. Aut. Bot. 28. 1840, descr. Labrador and Hudson Bay=Lychnis furcata (Raf.) Fernald, Rhodora 34:22. 1932 (L. affinis J. Vahl, 1842). \*levigata Raf. Herb. Raf. 61. 1833, nom. (S. rotundifolia Nutt.). Kentucky or Illinois.

miniata Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818, nom.; Ann. Nat. Ann. Synop. 12. 1820, descr.; Aut. Bot. 18. 1840, nom. in syn. sub Silene virginica Linn. Western Pennsylvania, Virginia and Kentucky=Silene virginica

\*quadridentata Raf. Aut. Bot. 25. 1840, nom., sphalm.= S. quadrifida Linn. Europe.

\*scabra Raf. op. cit. 18, descr. Western Kentucky=S. regia Sims; see Fernald, Rhodora 46:40. 1944. \*shortiana Raf. First Cat. Bot. Gard. Transylv. Univ. 15.

1824, nom. Kentucky.

SPERGULA Linn.

falcata Raf. New Fl. N. Am. 4:16. 1836 [1838], descr. Lower Ohio and Missouri Rivers

pumila Raf. Fl. Ludovic. 93. 1817, descr. (Spergula Rob. Voy. Louis. 3:486. 1807). Louisiana.

STELLARIA Linn.

\*latifolia Raf. Herb. Raf. 66. 1833, nom. Appalachian Moun-

\*montana Raf. Fl. Ludovic. 171. 1817, nom.; Am. Monthly Mag. Crit. Rev. 2:207. 1818, descr. New York (Catskill Mountains)

Rev. l.c., descr.; op. cit. 344. 1818, nom. (Stellaria graminea Bigelow); M'Murtrie, Sketch. Louisv. 225. 1819, nom. New York, Pennsylvania, Kentucky=S. longifolia Muhl.

STERIS Adans.=Lychnis Linn.

\*viscaria Raf. Aut. Bot. 27. 1840, nom. (Lychnis viscaria Linn.). Europe.

STONCKENYA Raf. Am. Monthly Mag. Crit. Rev. 4:193. 1819, nom., sphalm.=Honkenya Ehrh. (1788)=Arenaria

TEROGIA Raf. Fl. Tellur. 3:56. 1836 [1837], descr.=Ortega Linn.

dichotoma Raf. 1.c., nom. (Ortega dichotoma Linn.). Spain, North Africa.

TUNICA Scop.

†dianthoides Raf. Aut. Bot. 26. 1840, nom., nota (Gypsophila dianthoides Sibth. & Sm.). Crete.

\*podolica Raf. l.c., descr. Southwestern Russia (Podolia). †rigida Raf. op. cit. 27, nom. (Gypsophila rigida Linn.).

Europe=Tunica saxifraga (Linn.) Scop.

XAMILENIS Raf. Aut. Bot. 24. 1840, descr., nom. nov. Nanosilene Otth (1824, ut sect. Silene Linn.); Pennell, Bull. Torr. Bot. Club 48:92. 1921, nom. = Silene Linn.

\*uniflora Raf. 1.c., nom. (Silene acaulis Linn.). Labrador.

#### NYMPHAEACEAE

\*NELUMBICUM Raf. Med. Repos. II. 5:351. 1808, nom., sphalm.=Nelumbium Juss. (1789) = NelumboAdans. (1763)

NELUMBIUM Juss. (1789) = Nelumbo Adans. (1763).

codophyllum Raf. Fl. Ludovic. 10, nom., 22, descr., 1817 (Napoleone Rob. Voy. Louis. 2:323, 441; 3:355. 1807); Am. Monthly Mag. Crit. Rev. 4:194. 1819, nom.; Med. Fl. 2: 42. 1830, descr.; Casket 1831:134. 1831, nom.; Sat. Eve. Post 10(566):[4]. 1831, nom. Louisiana=Nelumbium luteum Willd.=Nelumbo pentapetala (Walt.) Fernald (Nelumbo lutea Pers.).

luteum Willd.; Raf. Med. Fl. 2:42. 1830, descr. Eastern

United States=praec.

var. albiflorum Raf. 1.c., descr. levigatum Raf. op. cit. 43, descr. maculatum Raf. op. cit. 42, descr. pallidum Raf. 1.c., descr. undulatum Raf. l.c., descr.

NYMPHEA 11 Raf. Med. Repos. II. 5:354, 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom.; Med. Fl. 2:45. 1830, descr. = Nymphaea Linn. 1753, nom. conserv. (Castalia Salisb., 1805).

crenulata Raf. 11.cc., nom. Eastern North America.

\*fuscata Raf. Herb. Raf. 53. 1833, nom. Rocky Mountains or Oregon ?

<sup>11</sup> All but N. fuscata Raf. are entered in Index Kewensis 2: 321-322. 1894 under Nymphaea Linn.

NYMPHEA (continued)

maculata Raf. Med. Fl. 2:45. 1830, descr.; Casket 1831:476. 1831, descr.; Sat. Eve. Post 10(534):[4]. 1831, descr., non Schum. & Thonn. (1828). Canada and New York, near Lake Ontario=Nymphaea tuberosa Paine, 1865.

odorata Ait.; Raf. Med. Fl. 2:45. 1830, descr. Eastern North

America.

var. chlorhiza Raf. l.c., descr. Casket 1831:476. 1831, descr.; Sat. Eve. Post 10(534):[4]. 1831, descr. parviflora Raf. 11.cc., descr. rubella Raf. ll.cc., descr.

rosea Raf. Med. Fl. I.c., descr.; Casket 1831:476. 1831, descr.; Sat. Eve. Post 10(534):[4]. 1831, descr. New York, Ohio

=Nymphaea odorata Ait. var. rosea Pursh. spiralis Raf. Il.cc., descr. (Nymphaea alba sensu Michx.; N. odorata sensu Ell.). Southern United States=Nymphaea

odorata Ait.

**ROPALON** Raf. New Fl. N. Am. 2:17. 1836 [1837], descr.= Nuphar Smith (1808 vel 1809), nom. conserv. (Nympho-

santhus L. C. Rich., 1808). sagittatum Raf. 1.c., descr. (Nymphaea sagittifolia Walt.; N. longifolia Michx.). Carolina to Florida = Nuphar sagittaefolium (Walt.) Pursh.

## RANUNCULACEAE

\*ABALEMIS Raf. Act. Soc. Linn. Bordeaux 6:262. 1834, descr., iter. Merr. Proc. Am. Philos. Soc. 86:86, 89. 1942, nom., nota (Type Anemone virginiana Linn.)=Anemone Linn.

ABELEMIS Raf. ex Britton, Ann. N. Y. Acad. Sci. 6:223. 1892, nom. in syn.=Abalemis Raf.=Anemone Linn.

petiolaris Raf. ex Britton, 1.c., nom. in syn. Eastern United States=Anemone virginiana Linn.

ACONITUM Linn.

cordatum Raf. New Fl. N. Am. 1:56. 1836, descr. Ohio, Kentucky.

var. bislorum Raf. 1.c., descr. divergens Raf. 1.c., descr. (Aconitum uncinatum sensu DC.; A. volubile Muhl.). Alleghany Mountains=A. uncinatum

flexuosum Raf. op. cit. 55, descr. (Aconitum uncinatum sensu Michx.). Unaka Mountains, North Carolina=A. uncinatum

\*kelleri Raf. New Fl. N. Am. 1:57. 1836, nom.=A. koehleri Reichb. Siberia.

†oregonense Raf. Herb. Raf. 49. 1833, nom.; New Fl. N. Am. 1:57. 1836, descr. Oregon. scandens Raf. New Fl. N. Am. 1:55. 1836, descr. Peaks of

Otter, Virginia.

truncatum Raf. l.c., descr. Western Kentucky, Illinois. \*ACTEA Raf. Am. Monthly Mag. Crit. Rev. 4:193. 1819, nom.; Ann. Gén. Sci. Phys. 7:18. 1820, nom.; Med. Fl. 1:89. 1828, descr., iter. Man. Med. Bot. 89. 1841=Actaea Linn.

\*alba Raf. Med. Fl. 1:89. 1828, descr., iter. Man. Med. Bot. 89. 1841; Med. Fl. 2:186. 1830, nom. North Carolina=

Actaea alba (Linn.) Mill. \*nigra Raf. Med. Fl. 2:186. 1830, nom. Northern and Boreal regions = Actaea nigra Gaertn. Mey. & Sherb. = Actaea spicata Linn.

\*racemosa Raf. op. cit. 1:85. 1828, nom., iter. Man. Med. Bot. 85. 1830; New Fl. N. Am. 1:60. 1836, nom. Eastern North America=Cimicifuga racemosa (Linn.) Nutt.

\*rubra Raf. Med. Fl. l.c.; op. cit. 2;186, 1830, nom. Eastern North America=Actaea rubra Willd.

\*spicata Raf. op. cit. 2:186. 1830, nom.; New Fl. N. Am. 1: 60. 1836, nom. Boreal and temperate regions = Actaea spicata Linn.

ADONIS Linn.

†riparia Raf. Herb. Raf. 60. 1833, nom.; New Fl. N. Am. 1: 66. 1836, descr. (Adonis autumnalis auct. Am.). Western Kentucky to Louisiana = Adonis annua Linn. (A. autumnale Linn.).

\*AJAXIA Raf. Med. Fl. 2:216. 1830, nom. sub Delphidium Raf. = Delphinium Linn. [Delphinium ajacis Linn.].

ANEMONE Linn.

anomala Raf. Fl. Ludovic. 82. 1817, descr. (Anemone 2, Rob. Voy. Louis. 3:463. 1807). Louisiana.

\*brevifolia Raf. Herb. Raf. 49. 1833, nom. Rocky Mountains or Oregon.

\*lacera Raf. l.c., nom. Rocky Mountains or Oregon.

pedata Raf. Med. Repos. II. 5:361. 1808, descr.; Jour. Bot. (Paris) 1:230. 1809, descr. New Jersey=Anemone nemo-

BOTROPHIS Raf. Med. Fl. 1:85. 1828, descr.; iter. Man. Med. Bot. 85. 1841; Loud. Gard. Mag. 8:246. 1832, nom., nota (Macrotrys Raf., 1808), iter. Schlecht Linnaea 8: Lit.-Ber. 70. 1833, iter. Britten, Jour. Bot. 38:227. 1900; Act. Soc. Linn. Bordeaux 6:262. 1834, nom., nota (Macrotrys Raf. 1808); Fl. Tellur. 1:59. 1836 [1837], nom.=Cimicifuga Linn.

actaeoides Raf. ex Fisch. & Mey. Ind. Sem. Hort. Petropol. 1:21. 1835.=Cimicifuga racemosa (Linn.) Nutt.

pumila Raf. Med. Fl. 1:86. 1828, nom., nota, iter. Man. Med. Bot. 86. 1841. New York.

serpentaria Raf. op. cit. 85. f. 16, descr.; iter. Man. Med. Bot. 1.c. (Cimicifuga serpentaria Pursh; Actaea racemosa Linn.); New Fl. N. Am. 1:60. 1836, nom. North America=Cimicifuga racemosa (Linn.) Nutt.

CALTHA Linn.

parnassifolia Raf. Med. Repos. II. 5:361. 1808, descr. "pamassifolia"; Jour. Bot. (Paris) 1:229. 1809, descr., Am. Monthly Mag. Crit. Rev. 4:193. 1819, nom. (Caltha ficarioides Pursh). New Jersey=Caltha palustris Linn. CHRYSA Raf. ("Schmaltz") ex Steud. Nomencl. 191. 1821,

nom. = seq.

nom.=seq.
CHRYZA Raf. Med. Repos. II. 5:352. 1808, nom.; Jour. Bot.
(Paris) 2:170. 1809, nom.; Am. Monthly Mag. Crit. Rev.
2:267. 1818, nom., nota (Coptis Salisb.); op. cit. 4:191.
1819, nom., nota (Coptis Salisb.); Jour. Phys. Chim. Hist.
Nat. 89:258. 1819, nom., nota (Coptis Salisb.); Med. Fl.
1:128. 1828, nom., nota (Coptis Salisb.), iter. Man. Med.
Bot. 128. 1841=Coptis Salisb. (1807).

borealis Raf. Med. Repos. II. 5:352. 1808, nom. (Helleharus)

borealis Raf. Med. Repos. II. 5:352. 1808, nom. (Helleborus trifolius Linn.); Jour. Bot. (Paris) 2:170. 1809, nom. (Helleborus trifolius Linn.); A. Gray, Am. Jour. Sci. 40: 228. 1841, nom. = Coptis trifolia (Linn.) Salisb.

\*fibraurea Raf. Med. Fl. 1:127. 1828, nom. in syn. (Fibra aurea "Colden & Schoepf," i.e., Colden f. ex Schoepf, Mat. Med. Am. 90. 1787). North America = Coptis groenlandica (Oeder) Fernald, Rhodora 31:142. 1929.

CLEMATIS Linn.

flavescens Raf. Fl. Ludovic. 81. 1817, descr. (Clematis 1 Rob. Voy. Louis. 3:462. 1807). Louisiana.

\*parviflora Raf. Herb. Raf. 68. 1833, nom., non C. parviflora DC. (1823). Alleghany Mountains. striata Raf. Fl. Ludovic. 82. 1817, descr. (Clematis 2 Rob. Voy. Louis. 3:462. 1807). Louisiana.

\*DECASTIA Raf. Anal. Nat. Tabl. Univ. 176. 1815, nom. nov. Nigella Linn.

†DELPHIDIUM Raf. Anal. Nat. Tabl. Univ. 176. 1815, nom. nov. Delphinium Linn.; Am. Monthly Mag. Crit. Rev. 3: 1818, nom.; op. cit. 4:193, 207. 1819, nom.; Med. Fl. 2:216. 1830, nom., nota (Delphinium Linn.) = Delphinium Linn.

\*azureum Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824,

nom. Kentucky=Delphinium azureum Michx. \*consolida Raf. Med. Fl. 2:216. 1830, nom. [Delphinium consolida Linn.]. Europe.

\*exaltatum Raf. 1.c., nom. [Delphinium axaltatum Ait.]. North America.

\*flexuosum Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818, nom.; Ann. Nat. Ann. Synop. 12. 1820, descr.; First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom. Western Pennsylvania (type), Kentucky.

\*pallidum Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom. Kentucky.

\*staphisagria Raf. Med. Fl. 2:216. 1830, nom. [Delphinium staphisagria Linn.]. Mediterranean region.

DELPHINIUM Linn.

flexuosum Raf. ex Jacks\*. Ind. Kew. 1:726. 1893 (Delphidium flexuosum Raf.). Pennsylvania to Kentucky.

DIPLEINA Raf. Aut. Bot. 54. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:93. 1821, nom. = Actaea Linn.

umbellata Raf. 1.c., descr.; Pennell, 1.c., nom. Siberia=? Actaea spicata Linn.

Rctaea spicata Linn.

ENEMION Raf. Jour. Phys. Chim. Hist. Nat. 91:70. 1820, descr.; Ann. Gén. Sci. Phys. 7:18. 1820, descr.; Western Minerva 40. 1821, descr.; Fox, Science II. 12:212. 1900, nom, nota; Kentucky Gaz. 36(15):[3]. 1822, descr.; Med. Fl. 1:128. 1828, descr. in obs. sub Coptis trifolia Salisb., iter. Man. Med. Bot. 128. 1841; Atl. Jour. 1:78. 1832,

nom., nota; Life of Travels 61. 1836, nom.; Drumm. & Hutch. Kew Bull. 1920:159-161. 1920.

biternatum Raf. Jour. Phys. Chim. Hist. Nat. 91:70. 1820, descr.; Ann. Gén. Sci. Phys. 7:387. 1820, descr.; Western descr.; Ann. Gen. Sci. Phys. 7:387. 1820, descr.; Western Minerva 40. 1821, descr.; Kentucky Gaz. 36(15):[3]. 1822, descr.; First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom.; Med. Fl. 1:128. 1828, nom. sub Coptis trifolia Salisb., iter. Man. Med. Bot. 128. 1841; Atl. Jour. 1:78. 1832, nom., nota; Herb. Raf. 61. 1833, nom.; Aut. Bot. 175. 1840, nom., nota (Isopyrum thalictroides sensu Hook. Jour. Bot. 1:187. 1834, in nota, non Linn.). Ohio, Kentucky, Illinois (Isopyrum hiternatum (Raf.) Torr. & Gray) Illinois (Isopyrum biternatum (Raf.) Torr. & Gray).

\*ENYMION Raf. Life of Travels 61. 1836, nom. Kentucky=

praec.

GAISSENIA Raf. Med. Repos. II. 5:351. 1808, nom., nota; Jour. Bot. (Paris) 2:168. 1809, nom., nota; Anal. Nat. Tabl. Univ. 177. 1815, nom.; Am. Monthly Mag. Crit. Rev. 2:267. 1818, nom.=Trollius Linn.

verna Raf. Med. Repos. et Jour. Bot. Il.cc., nom. (Trollius americanus Muhl.); Am. Monthly Mag. Crit. Rev. 4:193. 1819, nom.; A. Gray, Am. Jour. Sci. 40:227. 1841, nom. Pennsylvania=Trollius americanus Muhl.

HARTIANA Raf. Neogen. 2. 1825, descr. — Anemone Linn. caroliniana Raf. ex Jacks\*. Ind. Kew. 1:1095, 1893 (Anemone

caroliniana Walt.). Southeastern United States. tenella Raf. ex Jacks\*. l.c. (Anemone tenella Pursh). Southeastern United States=Anemone decapetala Ard.

HEPATICA Hill.

\*parviflora Raf. Western Minerva 41. 1821, nom., iter. Fox, Science II. 12:213. 1900; First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom. Kentucky. triloba Chaix.

var. acutiloba Raf. Med. Fl. 1:239. 1828, nom., iter. Man. Med. Bot. 239. 1841. North America. albiflora Raf. Il.cc., nom. parviflora Raf. 11.cc., descr.

HYDRASTIS Ellis

†trifolia Raf. Herb. Raf. 60. 1833, nom.; New Fl. N. Am. 2:34. 1836 [1837], descr. Western Kentucky=H. canadensis Linn.

\*MACROTIS Raf. Act. Soc. Linn. Bordeaux 6:262. 1834, nom., iter. Merr. Proc. Am. Philos. Soc. 86:86. 1942=seq.

MACROTRYS Raf. Med. Repos. II. 5:352. 1808, nom.; Jour. Bot. (Paris) 2:170. 1809, nom.; Anal. Nat. Tabl. Univ. 181. 1815, nom.; Am. Monthly Mag. Crit. Rev. 4:193. 1819, nom.; Jour. Phys. Chim. Hist. Nat. 89:259. 1819, nom.; op. cit. 91:72. 1820, nom.; Ann. Gén. Sci. Phys. 7: 18. 1820, nom.; Med. Fl. 1:85. 1828, nom., nota, iter. Man. Med. Bot. 85. 1841; Act. Soc. Linn. Bordeaux 6:262. 1834, nom., nota, iter. Mer. Proc. Am. Philos. Soc. 86:86. 1942 =Cimicifuga Linn.

acteoides Raf. Med. Repos. II. 5:352. 1808, nom. (Actaea racemosa Linn.); Jour. Bot. (Paris) 2:170. 1809, nom.; A. Gray, Am. Jour. Sci. 40:228. 1841 (actaeoides), nom.;

A. Gray, Am. Jour. Sci. 40:228. 1841 (actaeoiaes), nom.; Eastern United States=Cimicifuga racemosa (Linn.) Nutt.

MACROTYS Raf. ex DC. Syst. 1:383. 1817 ut sect. Actaea Linn.; DC. Prodr. 1:64. 1824, descr. (sect. Actaea Linn.); Loud. Gard. Mag. 8:246. 1832, nom. sub Actaea, ut gen., iter. Schlecht. Linnaea 8: Lit.-Ber. 70. 1833, iter. Britten, Jour. Bot. 38:227. 1900=praec.

\*MEGOTRIS Raf. Am. Monthly Mag. Crit. Rev. 4:189. 1819,

nom. = seq.

MEGOTRYS Raf. Am. Monthly Mag. Crit. Rev. 2:267. 1818, nom., nota=Macrotrys Raf.=Cimicifuga Linn.

serpentaria Raf. l.c., nom. (Cimicifuga serpentaria Pursh).
North America=Cimicifuga racemosa (Linn.) Nutt.
\*MONYPUS Raf. Anal. Nat. Tabl. Univ. 177. 1815, nom.

(Clematis sp.) = Clematis Linn.

MYOSURUS Linn.

shortii Raf. Am. Jour. Sci. 1:379, nom., 380, descr. 1819; Spreng. Neue Entdeck. 2:208. 1821, descr.; Isis von Oken 1822, 2:1323. 1822, descr.; First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom. Western Kentucky (Hopkinsville) = Myosurus minimus Linn.

PHTIRIUM Raf. Princ. Somiol. 29. 1814, nom. nov. Delphi-

nium Linn.

PLECTRORNIS Raf. Med. Fl. 2:216. 1830, nom. sub Delphidium Raf.=Delphinium Linn.

\*PLOTHIRIUM Raf. Fl. Tellur. 1:85. 1836 [1837], nom. nov. Delphinium Linn.

PSYCROPHILA (DC.) Raf. Atl. Jour. 1:144. 1832, descr. (Caltha Linn. sect. Psycrophila DC. Syst. 1:307. 1818) = Caltha Linn.

auriculata Raf. l.c., nom. (Caltha sagittata sensu Torr. Ann. Lyc. Nat. Hist. N. Y. 2:164. 1826, descr., non Cav.). Rocky Mountains=Caltha auriculata (Raf.) Merr. Jour. Arnold Arb. 29:211. 1948. (Caltha chionophila Greene; C. rotundifolia Greene, 1899).

sagittata Raf. l.c., nom. (Caltha sagittata Cav.). Falkland

Islands.

PULSATILLA Linn. = Anemone Linn.

\*cyanea Raf. Herb. Raf. 38. 1833, nom.; Act. Soc. Linn. Bordeaux 6:262. 1834, nom. (Pulsatilla nuttalliana Spreng.). Upper Missouri (Mandan country)=Dakota (Pulsatilla ludoviciana (Nutt.) Heller.)

RANUNCULUS Linn.

debilis Raf. Med. Repos. II. 5:359. 1808, descr.; Jour. Bot. (Paris) 1:225. 1809, descr.; Am. Monthly Mag. Crit. Rev. 1:359. 1847, nom. Pennsylvania.

flabellaris Raf. Am. Monthly Mag. Crit. Rev. 2:344. 1818, nom. nov. R. fluviatilis Bigelow (non Willd.) [Ranunculus delphinifolius Torr.; R. multifidus Pursh, non Forsk.] Eastern North America; see Fernald, Rhodora 38:171.

†flamuloides Raf. in M'Murtrie, Sketch. Louisv. 224. 1819, nom.; DC. Prodr. 1:32. 1824, nom. (flammuloides) in syn. sub Ranunculus flammula Linn. var. arenaria DC. Ken-

tucky=R. flammula Linn.

leptopetalus Raf. Fl. Ludovic. 83. 1817, descr. (Renoncule 4 Robin, Voy. Louis. 3:464. 1807); Seringe Mélang. Bot. 2:70. 1826, descr. Louisiana=R. recurvatus Poir.

meganthus Raf. op. cit. 82, descr. (Renoncule 2 Robin, Voy. Louis. 3:463. 1807); Seringe, 1.c., descr. Louisiana.

\*mutabilis Raf. Western Minerva 41. 1821, nom., iter. Fox, Science II. 12:213. 1900. Kentucky.

obtusiusculus Raf. Med. Repos. II. 5:359. 1808, descr.: Jour. Bot. (Paris) 1:225. 1809, descr.; Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom. New Jersey (R. ambigens S. Wats., 1878; R. laxicaulis (Torr. & Gray) Darby, 1841); see Fernald, Rhodora 38:175. 1936.

tovalis Raf. Précis Découv. Somiol. 36. 1814, descr.; Jour. Rot (Desv.) 4:268. 1814. descr. Canada, New York. Bot. (Desv.) 4:268. 1814, descr. Canada, New York. (R. rhomboideus Goldie, 1822); see Fernald, op. cit. 176.

\*polypetalus Raf. Fl. Ludovic. 83. 1817, descr. (Renoncule 3 Rob. Voy. Louis. 3:463. 1807); Seringe, Mélang. Bot. 2: 70. 1826, descr. Louisiana.

robini Raf. op. cit. 82, descr. (Renoncule 1 (flammula) Robin, Voy. Louis. 3:463. 1807); Seringe, l.c., descr. Louisiana =? Ranunculus obtusiusculus Raf.

\*setaceus Raf. Herb. Raf. 66. 1833, nom. Appalachian Mountains.

\*SARDONULA Raf. Act. Soc. Linn. Bordeaux 6:262. 1838, nom. subnud., iter. Merr. Proc. Am. Philos. Soc. 86:86. 1942, op. cit. 90, nom. (Type Ranunculus pusillus Poir.) = Ranunculus Linn.

\*SARPEDONIA Raf. Anal. Nat. Tabl. Univ.. 177. 1815, nom.

(Ranunculus sp. Linn.) = Ranunculus Linn. SCOTANUM Adans. = Ranunculus Linn.

\*ficaria Raf. Chloris Aetn. 14. 1815, nom. (Ranunculus ficaria Linn.; Ficaria consolida DC.); Casket. 1827:439. 1 f. 1827; Sat. Eve. Post 6(329):[4]. 1 f. 1827. Sicily.

\*STAPHISAGRIA Raf. Med. Fl. 2:216. 1830, nom.=Staphisagria [Bauhin] DC. Prodr. 1:56. 1824, ut sect. Delphinium Linn. (Staphysagria Spach 1839)=Delphinium Linn. STYLURUS Raf. Fl. Ludovic. 27. 1817, descr., non Salisb.

(1809) = Ranunculus Linn.

fistulosus Raf. op. cit. 28, descr. (Atraphace fistuleux Rob. Voy. Louis. 3:364. 1807). Louisiana.

THALICTRUM Linn.

pauciflorum Raf. Atl. Jour. 1:151. 1832, descr. Near Lake Ontario=T. dioicum Linn.

\*TRICHRYSUS Raf. Anal. Nat. Tabl. Univ. 177. 1815, nom. (Helleborus sp.)=Helleborus Linn.

WARNERA Mill. (1768) = Hydrastis Ellis (1759).

diphylla Raf. Med. Fl. 1:253. 1828, iter. Man. Med. Bot. 253. 1841, nom. nov. provis. Hydrastis canadensis Linn. Eastern North America.

tinctoria Raf. Il.cc., nom. nov. provis. Hydrastis canadensis Linn. Eastern North America.

## BERBERIDACEAE

BERBERIS Linn.

densiflora Raf. Sylva Tellur. 68. 1838, descr. "probably Siberia.

laxa Raf. 1.c., descr. (Berberis vulgaris Linn. var. iberica DC.?) "probably from Origon and Siberia" =? B. chinensis Hort. ex Poiret.

nigra Raf. op. cit. 67, descr. (Berberis vulgaris Linn., "var.," auct.; B. orientalis Tourn.). Turkey.
\*orientalis Tourn. ex Raf. l.c., nom. in syn.=B. nigra Raf.

pisifera Raf. op. cit. 68, descr. Appalachian Mountains of Carolina=B. canadensis Mill.

purpurea Raf. op. cit. 67, descr. (Berberis vulgaris Linn. var.," auct.; B. innominata Kielm.). Europe=? B. vulgaris

serrulata Raf. op. cit. 68, descr. New England to Carolina= Berberis vulgaris Linn.

\*DIPHYLEIA Raf. New Fl. N. Am. 4:9. 1836 [1838], descr.= Diphylleia Michx. (1803).

\*cymosa (Michx.) Raf. var. trifida Raf. New Fl. N. Am. 4:9. 1836 [1838], descr. Unaka and Cheroki Mountains, North Carolina=Diphylleia cymosa Michx. (1803).

ENDOPLECTRIS Raf. Fl. Tellur. 3:56. 1836 [1837], descr.= Epimedium Linn.

Tricolor Raf. op. cit. 57, descr. (Epimedium macranthum Mor. & Decne.; Lindl. Bot. Reg. 22: t. 1906. 1836). Japan.

JEFFERSONIA Barton.

\*adorata Raf. Med. Fl. 2:11. 1830, descr., sphalm.=J. odorata Raf.=J. diphylla (Linn.) Pers. var. cespitosa Raf. 1.c., nom.

parvifolia Raf. 1.c., nom. undulata Raf. 1.c., nom.

\*cinata Raf. Western Rev. Miscel. Mag. 1:93. 1819, nom., sphalm.=Jeffersonia binata Barton=J. diphylla (Linn.)

\*\*bartoni Raf. Med. Fl. 2:11. 1830; Loud. Gard. Mag. 8:246. 1832, iter. Schlecht. Linnaea 8: Lit.-Ber. 70. 1833, iter. Britten, Jour. Bot. 38:227. 1900=J. bartonis Michx.= J. diphylla (Linn.) Pers.

var. cespitosa Raf. Med. Fl. 2:12. 1830, nom.

grandiflora Raf. 1.c., nom. rosea Raf. 1.c., nom. undulata Raf. 1.c., nom.

\*lobata Raf. 1.c., descr.; iter. Loud. Gard. Mag., Schlecht. Linnaea, et Britten, Jour. Bot. Il.cc., nom. Georgia (An J. lobata Nutt. Jour. Acad. Philad. 7:99. 1834?)=J. diphylla (Linn.) Pers.

odorata Raf. Med. Fl. 2:11. 1830, nom.; Loud. Gard. Mag. 8:246. 1832, nom., iter. Schlecht. Linnaea 8: Lit.-Ber. 70. 1833, iter. Britten, Jour. Bot. 38:227. 1900; Herb. Raf. 46, 62. 1833, nom. Eastern North America=J. diphylla (Linn.) Pers.

\*peltata Raf. Herb. Raf. 46. 1833, descr.; Life of Travels 104. 1836, nom. Appalachian Mountains of Virginia, Penn-

sylvania=J. diphylla (Linn.) Pers.

†ODOSTEMON Raf. Am. Monthly Mag. Crit. Rev. 2:265. 1818, nom. (Berberis aquifolium Pursh; Berberis nervosa Pursh); op. cit. 4:188, 189, 192. 1819, nom., nota (Mahonia Nutt., 1818); Jour. Phys. Chim. Hist. Nat. 89:259. 1819, nom., nota (Mahonia Nutt., 1818); Med. Fl. 2:247. 1830, nom. (Mahonia Nutt., 1818); Herb. Raf. 51. 1833, nom.; Act. Soc. Linn. Bordeaux 6:262. 1834, nom., nota (Mahonia Nutt., 1818); Sylva Tellur. 69. 1838, nom., nota (Mahonia Nutt., 1818)=Mahonia Nutt. (1818), nom. conserv. (Odostemon Raf., 1818).

\*aquifolium Raf. Herb. Raf. 51. 1833, nom. (Mahonia aqui-folia Nutt.). Western North America.

PODOPHYLLUM Linn.

callicarpum Raf. Fl. Ludovic. 14. 1817, descr. (Gouet odorant et comestible Rob. Voy. Louis. 3:332. 1807); Med. Fl. 2:60. 1830, descr.; Loud. Gard. Mag. 8:246. 1832, nom., iter. Schlecht. Linnaea 8: Lit.-Ber. 70. 1833, iter. Britten,

Jour. Bot. 38:227. 1900; Herb. Raf. 46. 1933, nom. Louisi-

ana=Podophyllum peltatum Linn.

montanum Raf. Med. Fl. 2:59. f. 73. 1830, descr.; Loud.
Gard. Mag. l.c., nom., iter. Schlecht. et Britten, ll.cc.;
Herb. Raf. 46. 1833, nom. New York to Virginia= Podophyllum peltatum Linn.

var. acuminatum Raf. Med. Fl. 2:60. 1830, nom.

parviflorum Raf. 1.c., nom.

peltatum Linn.; Raf. Med. Fl. 2:59. 1830, descr. North

var. elatior Raf. 1.c., nom. extraxillare Raf. l.c., nom. grandiflorum Raf. l.c., nom. heterophyllum Raf. l.c., nom. odoratum Raf. 1.c., nom. oligodon Raf. 1.c., nom. pumilum Raf. 1.c., nom.

triphyllum Raf. l.c., nom. \*pubescens Raf. Herb. Raf. 46. 1833, descr. Pine\_barrens of southern New Jersey=Podophyllum peltatum Linn. SCULERIA Raf. Fl. Tellur. 2:52. 1836 [1837], descr.=Vancouveria Mor. & Decne. (1834).

geminata Raf. 1.c., descr. (Epimedium hexandrum Hook.). Oregon=Vancouveria hexandra (Hook.) Mor. & Decne. VINDICTA Raf. Fl. Tellur. 2:52. 1836 [1837], descr.=Aceranthus Mor. & Decne. (1837)=Epimedium Linn.

begonifolia Raf. 1.c., descr. (Epimedium diphyllum Lodd. Bot. Cab. 19: t. 1858. 1832; Hook. Bot. Mag. 62: t. 3448. 1835).

Japan. (Aceranthus diphyllus Mor. & Decne.).

## **MENISPERMACEAE**

\*ADENANDRIA Raf. Anal. Nat. Tabl. Univ. 175. 1815. nom.

\*ENDECARIA Raf. Anal. Nat. Tabl. Univ. 175. 1815, nom.

\*HEXAPHORA Raf. Anal. Nat. Tabl. Univ. 175. 1815, nom. Quid ?

OTAMPLIS Raf. New Fl. N. Am. 4:8. 1836 [1838], descr.; Good Book 46. 1840, nom.=Cocculus DC. (1818), nom. conserv. (Cebatha Forsk., 1775; Leaeba Forsk., 1775; Epibaterium Forsk., 1775).

vitifolia Raf. 1.c., descr. Arkansas and Texas=Cocculus carolinus (Linn.) DC. (Epibaterium carolinum Britton).
\*RITTENASIA Raf. Anal. Nat. Tabl. Univ. 175. 1815, nom.

(Menispermum sp. Linn.)=Menispermum Linn.
WENDLANDIA Willd, 1799 (non Bartl. 1830)=Cocculus DC.

(1818), nom. conserv. (Cebatha Forsk., 1775; Leaeba Forsk., 1775; Epibaterium Forsk., 1775). \*panduroides Raf. Herb. Raf. 80. 1833, nom. Florida or Ala-

bama. Prob.=Cocculus carolinus (Linn.) DC.

# MAGNOLIACEAE

\*FIGONIA Raf. Anal. Nat. Tabl. Univ. 177. 1815, nom. [Liriodendron figo Lour.] = Michelia Linn. LIRIODENDRON Linn.

tulipifera Linn. Eastern United States. var. alba acutifolia Raf. Med. Fl. 2:239, 1830, nom. flava obtusifolia Raf. l.c., nom.=L. tulipifera Linn. forma obtusilobum Schelle.

MAGNOLIA Linn.

\*acuta Raf. New Fl. N. Am. 3:95. 1836 [1838], nom. Florida. \*ferruginea Collins ex Raf. Aut. Bot. 78. 1840, descr. Alahama?

fragrans Raf. Fl. Ludovic. 91. 1817, descr. (Magnolia glauca Linn., var. longifolia Pursh; Magnolia glauca sensu Rob. Voy. Louis. 3:481. 1807); Med. Fl. 2:32. 1830, descr.; Herb. Raf. 55. 1833, nom.; New Fl. N. Am. 3:95. 1836 [1838], Louisiana, Florida=Magnolia virginiana Linn. \*lacunosa Raf. Aut. Bot. 78. 1840, descr. Florida.

\*rotundifolia Raf. 1.c., nom. alt. Magnolia ferruginea Collins.

Alabama i \*OCELLOSIA Raf. Anal. Nat. Tabl. Univ. 177. 1815, nom.

\*SAMPACA Raf. Anal. Nat. Tabl. Univ. 177. 1815, nom. [Sampacca Rumph. Herb. Amb. 2:199. 1741]=Michelia

# ILLICIACEAE

ILLICIUM Linn.

Ouid ?

\*reticulatum Raf. Aut. Bot. 86. 1840, descr. Florida.

### CALYCANTHACEAE

\*CALICANTHUS Raf. Ann. Gén. Sci. Phys. 5:211. 1820. nom. = seq.

CALYCANTHUS Linn.

glaucus Willd.=C. fertilis Walt.

var. heterophylus Raf. Alsogr. Am. 8. 1838, descr. South-eastern United States.

longifolius Raf. l.c., descr. Alabama.

\*lanceolatus Raf. Herb. Raf. 58. 1833, nom. Wasioto or Cumberland Mountains.

mollis Raf. Alsogr. Am. 7. 1838, descr. Carolina to Florida= C. floridus Linn.

\*parviflorus Raf. Herb. Raf. 58. 1833, nom. Appalachian Mountains.

reticulatus Raf. Alsogr. Am. 7. 1838, descr. (Calycanthus laevigatus sensu Pursh; C. ferax Michx.). Carolina=C. fertilis Walt. var. laevigatus (Willd.) Bean.

tomentosus Raf. 1.c., descr. Alabama, Louisiana=? C. mohrii (Small) Pollard.

verrucosus Raf. op. cit. 8, descr. Carolina=C. fertilis Walt. var. laevigatus (Willd.) Bean. var. cuneatus Raf. l.c., descr. Appalachian Mountains.

multiflorus Raf. I.c., descr. Alabama. parviflorus Raf. I.c., descr. Appalachian Mountains. \*viridiflorus Raf. Herb. Raf. 58. 1833, nom. Appalachian

Mountains

CHIMONANTHUS Lindl. (1819) nom. conserv. (Meratia Loisel., 1818).

parviflorus Raf. Alsogr. Am. 6. 1838, descr. [Calycanthus praecox Linn. var.]. China, Japan. (Meratia praecox Rehd. & Wils.)=Chimonanthus praecox (Linn.) Link.

## ANNONACEAE

\*AMBOTIA Raf. Anal. Nat. Tabl. Univ. 175. 1815, nom. (Annona sp. Linn.) = Annona Linn.

ASIMINA Adans.

\*angustifolia Raf. Aut. Bot. 77. 1840, descr. Southern Florida.

\*arborea Raf. 1.c., descr. (Annona glabra Linn.). Ohio to Louisiana.

incarnata Raf. Med. Fl. 2:197. 1830, nom.

\*ATANARA Raf. Anal. Nat. Tabl. Univ. 175. 1815, nom. (Annona sp. Linn. [Atamaram Rheede=Annona squamosa Linn.])=Annona Linn.

\*CANANGA Raf. Anal. Nat. Tabl. Univ. 175. 1815, nom. [Cananga Rumph. Herb. Amb. 2:195. t. 65. 1741] = Cananga Hook. f. & Th. (1855), non Aubl., 1775, nom. conserv. (Canangium Baill., 1868).

\*CHERIMOLIA Raf. Anal. Nat. Tabl. Univ. 175. 1815, nom. (Annona [cherimolia Mill.])=Annona Linn.

\*FUNISARIA Raf. Anal. Nat. Tabl. Univ. 175. 1815, nom. [Funis musarius Rumph. Herb. Amb. 5:78. t. 42. 1747].= Uvaria Linn.

\*GLYPTOMENES Collins ex Raf. Aut. Bot. 77. 1840, nom. sub Asimina angustifolia Raf. = Asimina Adans. (1763) (Pityothamnus Small, 1933).

\*MODIRA Raf. Anal. Nat. Tabl. Univ. 175. 1815, nom.=? Annona Linn.

\*NARUMA Raf. Anal. Nat. Tabl. Univ. 175. 1815, nom. [Narum Adans.]=Uvaria Linn.

PORCELIA Ruiz & Pavon.

\*tribuba Raf. Western Rev. Miscel. Mag. 2:93. 1819, nom., sphalm.=Porcelia triloba Pers.=Asimina triloba Dunal. Éastern North America.

## MYRISTICACEAE

KNEMA Lour.

bicolor Raf. Sylva Tellur. 137. 1838, descr., nom. nov. Knema corticosa Lour. Indo-China.

## MONIMIACEAE

\*DARLUCA Raf. Anal. Nat. Tabl. Univ. 175. 1815, nom. Quid ? Ut videtur Monimiaceae.

\*HETRIDMUS Raf. Specch. Sci. 1:155. 1814, nom. (Citrosma sp.); Anal. Nat. Tabl. Univ. 172. 1815, nom.; Alsogr. Am. 6. 1838, nom. = Siparuna Aubl. (1775).

### LAURACEAE

AJOVEA Juss. (1789); Raf. Sylva Tellur. 134. 1838, descr.=

Aiouea Aubl. (1775).
guianensis Raf. Sylva Tellur. 134. 1838 (Aiouea guianensis Aubl.; Laurus hexandra Sw.). West Indies, Guiana.
BALANOPSIS Raf. Sylva Tellur. 134. 1838, descr., op. cit. 158, nom., nota=Ocotea Aubl. (1775) (Mespilodaphne Nees, 1833).

acuta Raf. 1.c., descr. Guiana=Ocotea vel Nectandra sp. cassia Raf. l.c., nom. [Laurus cassia Linn.]. Ceylon=Neolit-sea zeylanica (Linn.) Merr.

\*cupularis Raf. l.c., nom. (Laurus cupularis Lam.). Mascarene Islands = Mespilodaphne cupularis Nees = Ocotea mascarena

(Buchoz) Kosterm. cupulata Raf. ex Jacks\*. Ind. Kew. 1:265. 1893, sphalm.=
B. cupularis Raf.=Mespilodaphne cupularis (Lam.) Nees=

praec. elliptica Raf. Sylva Tellur. 1.c., descr. Guiana=Ocotea vel Ñectandra sp.

BRYANTEA Raf. Sylva Tellur. 165. 1838, descr.=Neolitsea (Benth.) Merr. (1905). (Litsea Lam., sect. Neolitsea Benth.,

dealbata Raf. 1.c., nom. (Tetranthera dealbata R. Br.). Aus-

tralia=Litsea dealbata (R. Br.) Nees=Neolitsea dealbata (R. Br.) Merr. Jour. Arnold Arb. 29:200. 1948.

CAMPHORA Nees (1836); Raf. Sylva Tellur. 135. 1838, descr.=Cinnamomum Blume (1825).

angustifolia Raf. op. cit. 136, descr. Moluccas. japonica Raf. l.c., descr.; Aut. Bot. 85. 1840, descr. Japan=

? Cinnamomum camphora Nees & Eberm.

vera Raf. 11.cc., descr. Borneo, Sumatra=Cinnamomum parthenoxylon (Nees) Meissn. vel Dryobalanops camphora Colebr. (Dipterocarpaceae). CINNAMOMUM Blume.

angustifolium Raf. Sylva Tellur. 135. 1838, descr. Mindanao,

\*culiban Raf. I.c., descr. (Laurus culilaban Linn., 1771). Moluccas=Cinnamomum culilawan Blume (Laurus culitlawan Linn., 1754); see Merrill. Interpret. Rumph. Herb. Amb. 232, 1917,

\*multiflorum Raf. 1.c., descr. Moluccas.

\*CRYPTOCARIA Raf. Sylva Tellur. 135. 1838, nom. sub

Endocarpa corymbosa Raf.=Cryptocarya R. Br. (1810).

\*CUBEBA Raf. Sylva Tellur. 165. 1838, descr., non Cubeba Raf. op. cit. 84=Litsea Lam. (1791), nom. conserv. (Malapoenna Adans., 1763; Tomex Thunb., 1783). <sup>12</sup>
pipereta Raf. ex Jacks\*. Ind. Kew. 1:663. 1893. sphalm.=seq.

\*piperita Raf. Sylva Tellur. l.c., descr. (Tetranthera piperita "Sm." [Kostel.]; Laurus cubeba Lour.). Indo-China (Annam)=Litsea cubeba (Lour.) Pers.; see Merrill, Trans. Am. Philos. Soc. II. 24(2): 166. 1935.

DAMBURNEYA Raf. Sylva Tellur. 136. 1838, descr.; Good

Book 48. 1840, nom.=Nectandra Roland (1778), non Berg.

(1767), nom. conserv. (Porostema Schreb., 1791). maritima Raf. 1.c., descr. (Laurus catesbaei Pers. [L. catesbyana Michx.]). Southeastern United States=Nectandra

coriacea (Sw.) Griseb. (Ocotea catesbyana Sarg.).

DECAPENTA Raf. Sylva Tellur. 165. 1838, descr., non Raf. (1834)=Litsea Lam. (1791), nom. conserv. (Malapoenna Adans., 1763; Tomex Thunb., 1783).

involucrata Raf. 1.c. (Laurus involucrata Koenig; Tetranthera apetala Roxb.). India=Litsea glutinosa (Lour.) C. B. Rob.

DIPLIATHUS Raf. Sylva Tellur. 135. 1838, descr.=Licaria Aubl. (1775) (Acrodictium Nees, 1833).

angulatus Raf l.c., descr. (Laurus cervantesii H.B.K.). Mexico=Licaria cervantesii (H.B.K.) Kosterm.

ENDOCARPA Raf. Sylva Tellur. 135. 1838, descr. = Aiouea Aubl. (1775).

corymbosa Raf. 1.c., descr. (Cryptocarya dubia H.B.K.). Colombia=Aiouea dubia (H.B.K.) Mez.

EVELYNA Raf. Sylva Tellur. 164. 1838 (non Poepp. & Endl., 1835), nom. nov. Euosmus Nutt. = Litsea Lam. (1791), nom. conserv. (Malapoenna Adans., 1763; Tomex Thunb., 1783). \*diospyros Raf. Aut. Bot. 85. 1840, nom. (Laurus diospyros

Pursh). Florida=Lindera melissaefolia (Walt.) Blume (Benzoin melissaefolium Nees).

<sup>12</sup> Glabraria Linn., 1771 est Boschia Korth., 1842 (Bombacaceae).

EVELYNA (continued).

\*geniculata Raf. I.c., nom. (Laurus geniculata Michx.). Carolina to Florida=Litsea geniculata (Walt.) Nicholson (Glabraria geniculata Britton) = Litsea aestivalis (Linn.) Fernald, Rhodora 47:140. 1945.

EVOSMUS Raf. Sylva Tellur. 133. 1838, descr. [Euosmus

Nutt.] = Litsea Lam. (1791), nom. conserv.; vide supra. **HECKERIA** Raf. Sylva Tellur. 165. 1838, descr. (Heckera O. Kuntze) = Litsea Lam. (1791), nom. conserv., vide supra.

glomerata Raf. 1.c., descr. (Tetranthera monopetala Roxb.). India=Litsea monopetala (Roxb.) Pers. (L. polyantha Tuss.).

LAURUS Linn.

angusta Raf. Sylva Tellur. 136. 1838, descr. (Laurus nobilis Linn., var.). Sicily, Greece=Laurus nobilis Linn. var. salicifolia Sw.

\*estivalis Raf. op. cit. 134, nom.=Laurus aestivalis Linn.= Litsea aestivalis (Linn.) Fernald, Rhodora 47:140. 1945, cum. svn.

ludoviciana Raf. Fl. Ludovic. 27. 1817, descr. (Laurier Rob. Nov. Louis. 3:363. 1807); op. cit. 161, nom., nota; Sylva Tellur. 136. 1838, descr.; Med. Fl. 2:236. 1830, nom.; Herb. Raf. 55. 1833, nom.; New Fl. N. Am. 3:95. 1836 [1837], nom. Louisiana. Ex descr.=Persea borbonia (Linn.) Pax (Tamala borbonia Raf.).

#MUSTAX Raf. Sylva Tellur. 136. 1838, nom., nota, subgen. Laurus Linn. (Laurus ? ludoviciana Raf.)=Persea Mill. (1768; Gaertn. f., 1805), nom. conserv. (Farnesia Heist.,

1763)

NECTANDRA Roland. ex Rottb.
filiformis Raf. Sylva Tellur. 134. 1838, nom. (Nectandra bijuga Rottb.; Laurus surinamensis Sw.). Guiana=Ocotea guianensis Aubl.

OZANTHES Raf. Sylva Tellur. 133. 1838, descr.=Lindera Thunb. (1783), nom. conserv. (Benzoin Fabr., 1763).

benzoin Raf. l.c., descr. (Laurus benzoin Linn.); Aut. Bot. 85. 1840, nom. Eastern North America=Lindera benzoin (Linn.) Blume.

PERSEA Mill. (1768; Gaertn. f., 1805), nom. conserv. (Farnesia Heist., 1763).

edulis Raf. Sylva Tellur. 134. 1838, nom. (Laurus persea Linn.) Tropical America.=Persea americana Mill.

macrocarpa Raf. Med. Repos. II. 5:352. 1808, nom. (Laurus persea Linn.); Jour. Bot. (Paris) 2:170. 1809, nom.; A. Gray, Am. Jour. Sci. 40:228. 1841, nom. Tropical America =Persea americana Mill.

**RUMPUTRIS** Raf. Fl. Tellur. **4**:92. 1836 [1838], descr.=Cas-

sytha Linn.

fasciculata Raf. 1.c., descr. (Cuscuta s. Cussutha indica Rumph. Herb. Amb. 5:491. t. 184. f. 4. 1747). Moluccas = Cassytha filiformis Linn.; see Merrill, Interpret. Rumph. Herb. Amb. 239. 1917.

SASSAFRAS Linn.

rubrum Raf. Sylva Tellur. 134. 1838, descr. (Laurus sassafras Linn.). Eastern North America = Sassafras albidum (Nutt.) Nees (S. officinale Nees & Eberm.).

\*trilobum Raf. Aut. Bot. 85. 1840, nom. nov. Laurus sassafras Linn. = praec.

var. molle Raf. 1.c., descr. Pennsylvania = Sassafras albidum (Nutt.) Nees, var. molle (Raf.) Fernald.

SPIRONEMA Raf. Fl. Tellur. 4:92. 1836 [1838], descr., nom.

nov. Volutella Forsk. = Cassytha Linn.

aphyla Raf. op. cit. 93, descr. (Volutella aphylla Forsk.). Arabia = Cassytha filiformis Linn.

TAMALA Raf. Sylva Tellur. 136. 1838, descr.; Good Book 48. 1840, nom.=Persea Mill. (1768; Gaertn. f., 1805), nom. conserv. (Farnesia Heist., 1763).

acuminata Raf. op. cit. 137, descr.; Aut. Bot. 85. 1840, nom.

Louisiana, Texas.

borbonia Raf. op. cit. 136, descr. [Laurus borbonia sensu Sw.,

non Linn.]. West Indies=Nectandra antillana Meisn. carolinensis Raf. l.c., descr.; Aut. Bot. 85. 1840, descr. (Laurus carolinensis Michx.). Carolina, Florida=Persea carolinensis Nees=Persea borbonia (Linn.) Spreng.

palustris Raf. op. cit. 137, descr.; Aut. Bot. l.c., descr. Carolina, Florida=Persea pubescens (Pursh) Sarg.=P. borbonia (Linn.) Spreng. forma pubescens (Pursh) Fernald, Rhodora 47:149. 1945.

\*serrulata Raf. Aut. Bot. 85. 1840, descr. Florida.

TETRANTHERA Jacq. (1797) = Litsea Lam. (1791), nom. conserv.. vide supra.

\*chinensis Raf. Sylva Tellur. 165. 1838, nom. (Litsea chinensis Lam.). Southern China=Litsea glutinosa (Lour.)

\*involucrata Raf. 1.c., nom. (Laurus involucrata Koenig).

India=Litsea glutinosa (Lour.) C. B. Rob.

TRIPLOMEIA Raf. Sylva Tellur. 134. 1838, descr. (Triplomeja O. Kuntze) = Licaria Aubl. (1775).

montana Raf. op. cit. 135. nom. (Laurus triandra Sw.). West Indies=Misanteca triandra Mez (Acrodiclidium jamaicense Nees)=Licaria triandra (Sw.) Kosterm.

### PAPAVERACEAE

ADLUMIA Raf. Med. Repos. II. 5:352. 1808, nom.; Jour. Bot. (Paris) 2:169. 1809, nom.; Am. Monthly Mag. Crit. Rev. 2:267. 1818, nom., nota (Corydalis fungosa Vent.); op. 2:267. 1818, nom., nota (Corydalis fungosa Vent.); op. cit. 4:194. 1819, nom., nota (Corydalis fungosa Vent.); Loud. Gard. Mag. 8:246. 1832, nom., nota, iter. Schlecht. Linnaea 8: Lit.-Ber. 70. 1833, iter. Britten, Jour. Bot. 38: 227. 1900; New Fl. N. Am. 1:64. 1836, descr.; Fl. Tellur. 1:16. 1836 [1837], nom.; Life of Travels 119. 1836, nom.; Good Book 40, 44. 1840, nom.; nom. conserv. (Bicuculla Borkh. 1797, non Bikukulla Adans., 1763). cirrhosa Raf. Med. Repos. 1.c., nom. (Fumaria fungosa Ait.; Fumaria recta Michx.); Jour. Bot. (Paris) 2:169. 1809 nom.; A. Gray, Am. Jour. Sci. 40:227. 1841, nom.; New Fl. N. Am. 1:65. 1836, descr. Alleghany and Appalachian Mountains=Adlumia fungosa (Ait.) Greene. var. alba Raf. New Fl. N. Am. 1.c., descr. elator Raf. 1.c., descr.

elatior Raf. 1.c., descr. rosea Raf. 1.c., descr. rupestris Raf. 1.c., descr.

ARGEMONE Linn.

alba Raf. Fl. Ludovic. 83. 1817, descr. (Argemone Rob. Voy. Louis. 3:464. 1807); First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom. Louisiana, in gardens, introd. from New Mexico=Argemone mexicana Linn. var. albiflora DC. \*flava Raf. Med. Fl. 2:195. 1830, nom. nov. A. mexicana

Linn.

CUCULARIA Raf. Med. Repos. II. 5:352. 1808, nom.; Jour. Bot. (Paris) 2:169. 1809, nom. = Dicentra Bernh. (1833), nom. conserv. (Bikukulla Adans., 1763; Capnorchis Borkh., 1797; Diclytra Borkh. 1797; Dielytra Cham. & Schlecht. 1826)

bulbosa Raf. Il.cc., nom. (Fumaria cucullaria Linn.); A. Gray, Am. Jour. Sci. 40: 227. 1841, nom. Eastern North Amer-

ica=Dicentra cucullaria (Linn.) Bernh.

DICLYTHRA Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom. (Corydalis Linn.) = Diclytra Borkh. (1797) = Dicentra Bernh. (1833), nom. conserv., vide supra.

\*divaricata Raf. l.c., nom. Kentucky. DICLYTRA Borkh. (1797) = Dicentra Bernh. (1833), nom. conserv., vide supra.

divaricata Raf. ex Jacks\*. Ind. Kew. 1:752. 1893. Kentucky \*ELSHOTZIA Raf. Aut. Bot. 13, 1840, nom. sub Omonoia californica Raf.=Eschscholzia Chamisso (1820).

FUMARIA Linn.

flavula Raf. Med. Repos. II. 5:358. 1808, descr.; Jour. Bot. (Paris) 1:224, 1809, descr.; Am. Monthly Mag. Crit. Rev. 1:357. 1817, nom. sub Corydalis aurea Michx. Eastern North America = Corydalis flavula (Raf.) DC. (Capnodes flavulum O. Kuntze).

GLAUCIUM Mill.

\*rupestre Raf. Herb. Raf. 66. 1833, nom. Appalachian Mountains.

MARZARIA Raf. Aut. Bot. 14. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:92. 1921, nom.=Macleaya R. Br. (1826).

cordata Raf. 1.c., descr.; Pennell 1.c., nom. (Bocconia cordata Willd.). Asia=Macleaya cordata (Willd.) R. Br.

ODOPTERA Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom.=Corydalis Medic. (1789), nom. conserv. (Capnoides Adans., 1763; Cisticapnos Adans., 1790; Neckeria Scop. 1777).
aurea Raf. 1.c., nom. (Corydalis [aurea] Willd.). Eastern

North America.

OMONOIA Raf. Fl. Tellur. 2:92. 1836 [1837], nom. nov. Eschscholzia Chamisso; op. cit. 4:121. 1836 [1838], nom., nota (Chryseis Lindl.); Good Book 40. 1840, nom. (Chryseis Lindl.) = Eschscholzia Chamisso (1820).

 californica Raf. Fl. Tellur. 2:92. 1836 [1837], descr. (Eschscholzia californica Chamisso; Lindl. Bot. Reg. 14: t. 1168. 1828 (Eschscholtzia); Hook. Bot. Mag. 56: t. 2887. 1829); Aut. Bot. 13. 1840, nom. California = Eschscholzia californica Chamisso. SANGUINARIA Linn.

canadensis Linn. Eastern North America.

var. cespitosa Raf. Med. Fl. 2:79, 1830, nom.; Casket 1831:43, 1831, nom. multipetala Raf. l.c., descr. parviflora Raf. 1.c., nom.

reniformis Raf. l.c., nom. repens Raf. 1.c., nom. stenopetala Raf. 1.c., descr.

#### CRUCIFERAE

ACUSTON Raf. Sylva Tellur. 131. 1838, descr.=Farsetia Turra (1765).

clypeatum Raf. 1.c., descr. (Alyssum clypeatum Linn.; Lunaria canescens Willd.). Southern Europe, Asia Minor=

Farsetia clypeata (Linn.) R. Br.

lunaroides Raf. l.c., descr. (Alyssum lunarioides Willd.; Farsetia lunarioides R. Br.; Hook. Bot. Mag. 58: t. 3087. 1834; Lunaria graeca Willd.). Greece=Farsetia lunarioides (Willd.) R. Br.

ALYSSUM Linn.

†gracile Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818, nom. Alleghany Mountains or Ohio.

ARABIS Linn.

mollis Raf. Am. Monthly Mag. Crit. Rev. 2:43. 1817, descr.; Fl. Ludovic. 169. 1817, nom., non Stev. (1812). New York=Arabis canadensis Linn.

†parviflora Raf. op. cit. 1:359. 1817, nom. (Arabis thaliana sensu Barton); op. cit. 2:43. 1817, descr. (Arabis thaliana sensu Pursh); Fl. Ludovic. 169. 1817, nom.; Am. Jour. Sci. 1:80, 81. 1818, nom.; Am. Monthly Mag. Crit. Rev. 4:194. 1819, nom. (A. thaliana sensu Nutt.); Jour. Phys. Chim. Hist. Nat. 89:259. 1819, nom., nota (Arabis thaliana sutt.) New York New Jersey, Pengalyanja Sisyebrium auctt.). New York, New Jersey, Pennsylvania = Sisymbrium

thalianum (Linn.) J. Gay.
†rotundifolia Raf. Am. Monthly Mag. Crit. Rev. 1:359.
1817, nom., nota; op. cit. 2:43. 1817, descr.; Fl. Ludovic.
169. 1817, nom.; Am. Jour. Sci. 1:80. 1818, nom. New

Jersey=Draba caroliniana Walt.

\*ARCHIMEDIA Raf. Anal. Nat. Tabl. Univ. 180. 1815, nom. (Iberis sp. Linn.) = Iberis Linn.

\*BISCUTELA Raf. Aut. Bot. 10. 1840, nom.=Biscutella Linn. \*pilosa Raf. l.c., descr. Arkansas.

\*raphanifolia Raf. 1.c., nom. Mediterranean region=Biscutella raphanifolia Poir. #BRACHYLOBIUM Raf. Med. Fl. 2:40. 1830, nom., nota,

subgen. Nasturtium R. Br. (Type, Nasturtium tuberosum Raf.).

BRASSICA Linn

crispa Raf. Specch. Sci. 2:70. 1814, descr. Sicily. floridana Raf. Atl. Jour. 1:147. 1832, descr. Florida.
montana Raf. Specch. Sci. 2:69. 1814, descr. Sicily.
rupestris Raf. Car. Nuov. Gen. Sp. Sicil. 77. 1810, descr.;
Stat. Gen. Sicil. 28. 1810, nom. Sicily.

BUNIAS Linn.

americana Raf. Med. Fl. 2:202. 1830, nom. (Bunias cakile sensu Schoepf, Mat. Med. Am. 105. 1787; "Bunias maritima" [Cakile americana Nutt.]) = Cakile edentula (Bigel.)

\*maritima Raf. 1.c., nom., sphalm. [Cakile maritima auct. Am.] = Cakile edentula (Bigel.) Hook.

\*CAPRELLA Raf. Am. Monthly Mag. Crit. Rev. 4:194. 1819, nom., sphalm. = seq.

CAPSELLA Medic. (1792), nom. conserv. (Bursa Weber, 1780;
Marsypocarpus Neck., 1790).
acutifolia Raf. New Fl. N. Am. 2:27. 1836 [1837], descr. Alleghany Mountains=C. bursa-pastoris (Linn.) Medic.

amblodes Raf. op. cit. 28, descr. Europe=C. bursa-pastoris (Linn.) Medic.

bifida Raf. 1.c., descr. Pennsylvania = C. bursa-pastoris (Linn.)

†bursa Raf. Am. Jour. Sci. 1:80. 1818, nom. (Thlaspi bursapastoris Linn.); New Fl. N. Am. 2:27, nom., 28, descr., 1836 [1837]. (Thlaspi bursa-pastoris Linn.). Europe, North America = Capsella bursa-pastoris (Linn.) Medic.

dentata Raf. New Fl. N. Am. 2:28. 1836 [1837], descr. Alleghany Mountains = C. bursa-pastoris (Linn.) Medic.

furcata Raf. 1.c., descr. Europe, Canada=C. bursa-pastoris (Linn.) Medic.

integrifolia Raf. op. cit. 27, descr. Pennsylvania, Kentucky = bursa-pastoris (Linn.) Medic.

CARDAMINE Linn.

angustifolia Raf. Fl. Ludovic. 84. 1817, descr. (Cardamine 3 Rob. Voy. Louis. 3:466. 1807). Louisiana, \*allotoma Raf. Herb. Raf. 50. 1833, nom. Rocky Mountains

or Oregon.

\*debilis Raf. op. cit. 68, nom. Alleghany Mountains. \*gracilis Raf. l.c., nom. Alleghany Mountains. \*pectinata Raf. Herb. Raf. 62. 1833, nom. alt. Cardamine precox Raf. Kentucky or Illinois.

\*precox Raf. I.c., nom. Kentucky or Illinois.
reflexa Raf. Fl. Ludovic. 84. 1817, descr. (Cardamine 2 Rob.
Voy. Louis. 3:466. 1807). Louisiana.

CHEIRANTHUS Linn.

\*fasciculatus Raf. Chloris Aetn. 4. 1815, nom. Sicily. \*rupestris Raf. l.c., nom. Sicily=? C. rupestris Sibth. & Sm. CRUCIUNDULA Raf. Fl. Tellur. 2:100. 1836 [1837], descr.= Thlaspi Linn.

minima Raf. 1.c., descr. (Thlaspi minimum Ard. Anim. Bot. Spec. 2: t. 15. 1764; Iberis stylosa Tenore; Hutchinsia stylosa DC.; Hook. Bot. Mag. 54: t. 2772. 1827). Southern Italy=Thlaspi minimum Ard.

DENTARIA Linn.

\*grandiflora Raf. Herb. Raf. 47. 1833, descr. "Origon [Rocky] Mts. and territory, Walton in 1822" (D. macrocarpa Nutt., 1838; Cardamine pulcherrima Greene, 1893); see Fernald, Rhodora 48:12. 1946.

†parvifolia Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818,

nom.; Ann. Nat. Ann. Synop. 12. 1820, descr. Western

Pennsylvania.

#DESCURIA Raf. Fl. Ludovic. 84. 1817, descr., sect. Sisym-

brium Linn. (Type S. leptapetalon Raf.).
DILEPTIUM Raf. Fl. Ludovic. 85. 1817, descr.; Am. Monthly Mag. Crit. Rev. 2:267. 1818, nom. (Lepidium virginicum Linn.); op. cit. 4:194. 1819, nom. (Lepidium virginicum Linn.); Med. Fl. 2:237. 1830, nom.: Act. Soc. Linn. Bordeaux 6:263. 1834, nom., nota=Lepidium Linn.

diffusum Raf. Fl. Ludovic. 85. 1817, descr. (Cochlearia 3
Rob. Voy. Louis. 3:467. 1807); Med. Fl. 2:237. 1830, nom.

Louisiana = Lepidium virginicum Linn.

precox Raf. op. cit. 86, descr. (Cochlearia 2, Rob. op. cit. 267). Med. Fl. 2:237. 1830, nom. Louisiana =? praec

virginicum Raf. ex Jacks\*. Ind. Kew. 1:759. 1893 (Lepidium virginicum Linn.). North America.

DISCOVIUM Raf. Jour. Phys. Chim. Hist. Nat. 89:96. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 236. 1820, descr. = Lesquerella S. Wats. (1888).

\*calcareum Raf. Herb. Raf. 38. 1833, nom. (Myagrum argenteum Pursh). Upper Missouri (Mandan country)=Dakota. = Lesquerella argentea (Pursh) MacMill. (Lesquerella ludoviciana S. Wats.).
gracile Raf. Jour. Phys. Chim. Hist. Nat. 89:96. 1819, descr.

Isis von Oken 1820, 1: Lit. Anz. 236. 1820, descr. Ohio River=? Lesquerella globosa (Desv.) S. Wats.

\*ohiense Raf. First Cat. Bot. Gard. Transylv. Univ. 1824, nom.; Herb. Raf. 61. 1833, nom.; Aut. Bot. 17. 1840, nom., nota. Ohio River near Gallipolis =? Lesquerella globosa (Desv.) S. Wats.

\*ohioense Raf. ex S. Wats. Bibl. Ind. N. Am. Bot. 1:450.

1878, nom. in syn.=praec. ohiotense Raf. ex DC. Syst. Nat. 2:700. 1821, descr. Ohio River near Gallipolis = praec.

DISYNOMA Raf. Fl. Tellur. 3:81. 1836 [1837], descr.=
Aethionema R. Br. (1812).

carnea Raf. I.c., descr. (Thlaspi carneum [Soland. ex] Russell Nat. Hist. Aleppo, ed. 2, 257. t. 11. f. 2. 1794). Syria and Anatolia=Aethionema carneum (Soland.) Fedtsch. (A. cristatum DC.).

ERYSIMUM Linn.

angustifolium Raf. Atl. Jour. 1:154. 1832, descr. (E. cheiranthoides sensu Pursh). Maryland=E. cheiranthoides Linn. EUDISTEMON Raf. Med. Fl. 2:219. 1830, nom., nota (Coch-

learia coronopus sensu Schoepf); Act. Soc. Linn. Bordeaux 6:263. 1834, nom., nota (Coronopus didymus auct. Am.); Herb. Raf. 80. 1833, nom., nota (Coronopus didymus sensu Nutt., Ell.)=Coronopus Gaertn. (1791) (Senebiera DC. 1791; Carara Medic. 1792).

EUDISTEMON (continued).

\*humifusum Raf. Herb. Raf. 80. 1833, nom. Florida or Alabama.

FARSETIA Turra.

incana Raf. Aut. Bot. 11. 1840, nom. (Cheiranthus farsetia Linn.; Farsetia aegyptiaca Desf.; Lunaria scabra Forsk.). Egypt, Arabia=Farsetia aegyptia Turra.

\*GAMBLUM Raf. Sylva Tellur. 131. 1838, nom., sphalm.= Gansblum Adans. (1763)=Draba Linn.

#GRAMILIA Raf. Am. Monthly Mag. Crit. Rev. 2:267. 1818, nom., nota, subgen. Draba Linn. (D. arabisans sensu Pursh). HESPERIS Linn.

\*estiva Raf. First Cat. Bot. Gard. Transylv. Univ. 21. 1824,

nom.=H. aestiva Lam.

fasciculata Raf. Speech. Sci. 2:46. 1814, descr. Sicily=
Matthiola fasciculata (Raf.) DC.

rupestris Raf. l.c., descr. Sicily=Matthiola incana (Linn.)
R. Br.

IBERIS Linn.

candicans Raf. Atl. Jour. 1:146. 1832, nom. (Iberis? sp. Torr. Ann. Lyceum. Nat. Hist. N. Y. 2:166. 1827, descr.). Rocky Mountains or adjacent plains.

IONDRA Raf. Aut. Bot. 11. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:91. 1921, nom.=Aethionema R. Br. (1812)

arabica Raf. 1.c., nom. (Thlaspi arabica Vahl [Iberis arabica Linn.]); Pennell, I.c., nom., nota. Arabia, Palestine, Egypt =Aethionema arabicum (Linn.) Andrz.

KERNERA Medic.=Cochlearia Linn.

\*cuneifolia Raf. Herb. Raf. 60. 1833, nom. Kentucky or Illinois.

\*sagittata Raf. 1.c., nom. Kentucky or Illinois.
NASTURTIUM R. Br.

\*arcuatum Raf. Med. Fl. 2:40. 1830, nom. Central Western United States.

\*diffusum Raf. 1.c., nom. Central Western United States. †nebrodense Raf. Précis Découv. Somiol. 38. 1814, descr.;

Jour. Bot. (Desv.) 4:270. 1814, descr. Sicily.

rotundifolium Raf. Fl. Ludovic. 86. 1817, descr. (Cochlearia
4 Rob. Voy. Louis. 3:467. 1807). Louisiana.

tuberosum Raf. op. cit. 84, descr. (Cochlearia 1 Rob. Voy.
Louis. 3:466. 1807); Med. Fl. 2:40. 1830, nom., nota.

Louisiana. \*OCLOROSIS Raf. Act. Soc. Linn. Bordeaux 6:263. 1834, nom., nota, iter. Merr. Proc. Am. Philos. Soc. 86:86. 1942, op. cit. 90, nom. (Type Hesperis pinnatifida Michx.=Iodan-

thus pinnatifidus Steud.). North America = Iodanthus Torr. & Gray (1838).

OPIZIA Raf. New Fl. N. Am. 2:29. 1836 [1837] sub Capsella bursa Raf., descr., non Presi (1830) = Capsella Medic.

(1792), nom. conserv. (Bursa Weber, 1780; Marsypocarpus Neck., 1790).

bursoides Raf. 1.c., nom. (Capsella bursa-pastoris Medic. f. apetala Opiz). Europe.

PACHILA Raf. Loud. Gard. Mag. 8:246. 1832, nom. nov. Erucaria Gaertn., iter. Schlecht. Linnaea 8: Lit.-Ber. 70. 1833, iter. Britten, Jour. Bot. 38:227. 1900=Erucaria Gaertn. (1791).

#PLAGIDON Raf. Sylva Tellur. 131. 1838, descr., nom. nov. provis., subgen. Acuston Raf. (Type Alyssum clypeatum Linn.; Lunaria canescens Willd.)=Farsetia Turra (1765).

\*PLATYLOMA Raf. Herb. Raf. 50. 1833, nom. subnud. Quid?
\*simplex Raf. 1.c., nom. Rocky Mountains or Oregon.

PODOLOBUS Raf. Am. Monthly Mag. Crit. Rev. 4:194. 1819, nom. nov. provis. Stanleya Nutt.; Herb. Raf. 38. 1833, nom. (Stanleya Nutt.); Act. Soc. Linn. Bordeaux 6:263. 1834, nom. (Stanleya Nutt.); Sylva Tellur. 113. 1838, descr. (Stanleya Nutt.); New Fl. N. Am. 4:15. 1836 [1838], nom. (Stanleya Nutt.)

(Stanleya Nutt.) = Stanleya Nutt. (1818).

\*pinnatifidus Raf. First Cat. Bot. Gard. Transylv. Univ. 15.
1824, nom. (Stanleya pinnatifida Nutt.); Sylva Tellur. 113.
1838, nom. (Stanleya pinnatifida Nutt.). North America.

PRISCIANA Raf. Sylva Tellur. 114. 1838, descr.=Heliophila Burm. f. (1763).

capensis Raf. l.c., nom. (Cleome capensis Linn.). South Africa=Heliophila capensis (Linn.) O. Kuntze (H. callosa DC.).

SEMETUM Raf. Aut. Bot. 17. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:92. 1921, nom. Ex descr.=Lepidium

ramosum Raf. 1.c., descr.; Pennell, 1.c., nom. Florida=? Lepidium virginicum Linn.

SHORTIA Raf. Aut. Bot. 16. 1840, descr.; Pennell, Bull. Torr. Bot. Club **48**:92. 1921, nom.=Arabis Linn.

dentata Raf. op. cit. 17, nom. (Arabis dentata Torr. & Gray; Draba dentata Hook. & Arn.; Sisymbrium dentatum Torr.); Pennell, I.c., nom. Eastern North America=Arabis dentata (Torr.) Torr. & Gray, et, quoad syn. Hook. & Arn., Draba ramosissima Desf. SINAPIS Linn.

crassifolia Raf. Car. Nuov. Gen. Sp. Sicil. 78. 1810, descr., Stat. Gen. Sicil. 28. 1810, nom. Sicily.

SISYMBRIUM Linn.

\*diffusum Raf. First Cat. Bot. Gard. Transylv. Univ. 16. 1824, nom. Kentucky. leptopetalon Raf. Fl. Ludovic. 84. 1817, descr. (Cardamine 1

Rob. Voy. Louis. 3:466. 1807). Louisiana.

TOMOSTOMA Raf. Neogen. 2. 1825, descr. = Draba Linn. caroliniana Raf. ex Jacks\*. Ind. Kew. 2:1087. 1895 (Draba

caroliniana Walt.). Eastern North America. hispidula Raf. ex Jacks\*. l.c. (Draba hispidula Michx.) Eastern North America=Draba caroliniana Walt.

TURRITIS Linn.=Arabis Linn.

\*cespitosa Raf. Chloris Aetn. 9. 1815, nom. Sicily.

\*hispida Raf. l.c., nom. Sicily.

lyrata Raf. Am. Monthly Mag. Crit. Rev. 2:44. 1817, descr.; Fl. Ludovic. 169. 1817, nom. New York (Catskill Mountains)=Arabis laevigata (Muhl.) Poir.

oblongata Raf. Il.cc., descr., nom. New York (Newburgh) = Arabis hirsuta (Linn.) Scop.

VESICARIA Adans.

\*cuneifolia Raf. Herb. Raf. 60. 1833, nom. alt. Kernera cuneifolia Raf. Kentucky or Illinois. \*sagittata Raf. 1.c., nom. alt. Kernera sagittata Raf. Kentucky

or Illinois.

### CAPPARIDACEAE

ARIVELA Raf. Sylva Tellur. 110. 1838, descr.=Polanisia Raf. (1818)

viscosa Raf. 1.c., nom. (Cleome viscosa Linn.). Old World Tropics=Polanisia icosandra (Linn.) Wight & Arn. (P. viscosa DC.).

\*ATALANTA Raf. Sylva Tellur. 113. 1838, descr. est Atalanta Nutt. (1818)=Cleome Linn.

\*serrulata Raf. l.c., descr. (Cleome serrulata Pursh) est A. serrulata Nutt. (1818). Missouri=Cleome serrulata Pursh.

AUBION Raf. Sylva Tellur. 110. 1838, descr.=Cleome Linn. chelidoni Raf. 1.c., descr. (Cleome chelidonii Linn.). India. CAPPARIS Linn.

obtusa Raf. Sylva Tellur. 109, nom. sub Gynophalis Raf. (Capparis cynocephallophora Linn.). Tropical America.

CLEOME Linn.

edulis Raf. Fl. Ludovic. 86. 1817, descr. (Mozambe comestible

Rob. Voy. Louis. 3:468. 1807); op. cit. 135, nom., nota; Med. Fl. 2:211. 1830, nom. Louisiana=seq. \*Iupinifolia Bartr. Travels 425. 1791, nom., nota; Raf. Fl. Ludovic. 135. 1817, nom., nota. Louisiana=? Gynandropsis gynandra (Linn.) Briq.

speciosa Raf. Fl. Ludovic. 10, nom., 86, descr., 1817. (Mozambe lilas Rob. Voy. Louis. 3:469. 1807). Louisiana, cult., e Mexico.

COALISIA Raf. ex Jacks\*. Ind. Kew. 1:572. 1893, sphalm.= sea.

angustifolia Raf. ex Jacks\*. l.c. (Coalasina angastifolia Raf.). Egypt.

\*COALISINA Raf. Sylva Tellur. 114. 1838, descr.=Cleome

\*angustifolia Raf. l.c., nom. (Cleome angustifolia Forsk.). Egypt.

\*CRISTELLA Raf. Sylva Tellur. 112. 1838, nom. sub Dispara Raf.=Cristatella Nutt. (1834) (Cyrbasium Endl., 1839).

DIORIMASPERMA Raf. Sylva Tellur. 111. 1838, descr. = Cleome Linn.

violacea Raf. 1.c., nom. (Cleome violacea Linn.). Portugal? DISPARA Raf. Sylva Tellur. 112. 1838, descr., nom. nov. Cristatella Nutt.; Good Book 40. 1840, nom.=Cristatella Nutt. (1834) (Cyrbasium Endl., 1839).

filiformis Raf. Sylva Tellur. 113. 1838. descr. (Cristatella erosa Nutt.). Oregon.

#GYNOPHALIS Raf. Sylva Tellur. 109. 1838, descr. subgen. Pleuteron Raf. (Type Capparis flexuosa Linn.) = Capparis HEMISCOLA Raf. Sylva Tellur. 111. 1838, descr.=Cleome Linn.

aculeata Raf. 1.c., nom. (Cleome aculeata Linn.). Tropical America.

ornithopoides Raf. l.c., nom. (Cleome ornithopodioides Linn.). Asia Minor, Persia.

\*HYPONEMA Raf. Good Book 40. 1840, nom. nov. Cleomella DC

INTUTIS Raf. Sylva Tellur. 108. 1838, descr. = Capparis Linn. amygdalina Raf. 1.c., descr. (Capparis amygdalina Lam.). South America.

ferruginea Raf. 1.c., descr. (Capparis ferruginea Linn.; C. octandra Jacq.). West Indies and Guiana.
\*ISEXIMA Raf. Sylva Tellur. 112. 1838, nom. sub Marsesina Raf., sphalm.=seq.

ISEXINA Raf. Sylva Tellur. 112. 1838, descr. = Cleome Linn. aurea Raf. I.c., descr. (Peritoma aureum Nutt.). Oregon = Cleome lutea Hook.

ISOPARA Raf. Atl. Jour. 1:144. 1832, nom. nov. Cleomella DC. mexicana Raf. 1.c., nom. (Cleomella mexicana Moç. & Sessé). Mexico.

 JACKSONIA Raf. Med. Repos. II. 5:352. 1808, nom.; Jour. Bot. (Paris) 2:170. 1809, nom.; Am. Monthly Mag. Crit. Rev. 2:267. 1818, nom., nota, non R. Br. (1811)=Polanisia Raf. (1818, 1819).

trifoliata Raf. Med. Repos. et Jour. Bot. 11.cc., nom.; A. Gray, Am. Jour. Sci. 40:227. 1841, nom. (Cleome dodecandra sensu auct. Am., non Linn.). Eastern North America=

Polanisia graveolens Raf.

LAGANSA Raf. Sylva Tellur. 110. 1838, descr.=Polanisia Raf. alba Raf. I.c., nom. [Lagansa alba Rumph. Herb. Amb. 5: 280. t. 96. f. 3. 1747] = Polanisia icosandra (Linn.) Wight & Arn.; see Merrill, Interpret. Rumph. Herb. Amb. 240. 1917.

MARSESINA Raf. Sylva Tellur. 112. 1838, descr. = Capparis Linn.

MELIDISCUS Raf. Sylva Tellur. 110. 1838, descr.=Cleome

gigantea Raf. 1.c., descr. (Cleome gigantea Linn.; Bot. Mag. 59: t. 3137. 1832; C. viridiflora Schreb.). South America.

MITOSTYLIS Raf. Sylva Tellur. 114. 1838, descr.=Cleome Linn procumbens Raf. 1.c., descr. (Cleome procumbens Jacq.). West

Indies MOZAMBE Raf. Sylva Tellur. 112. 1838, descr. = Cadaba Forsk.

(1775).

levigata Raf. 1.c., nom. (Cleome fruticosa Linn.). India = Cadaba fruticosa (Linn.) Druce (C. indica Lam.).

NEVOSMILA Raf. Sylva Tellur. 107. 1838, descr.=Crataeva Linn. arborea Raf. 1.c., descr. (Crataeva gynandra Linn.). West

OCTANEMA Raf. Sylva Tellur. 112. 1838, descr.=Capparis

Linn. angustifolia Raf. 1.c., nom. [Capparis angustifolia H.B.K.].

Mexico. crotonoides Raf. 1.c., nom. [Capparis crotonoides H.B.K.].

Colombia incana Raf. 1.c., nom. [Capparis incana H.B.K.]. South America.

scabrida Raf. 1.c., nom. [Capparis scabrida H.B.K.]. South America.

OLIGLORON Raf. Sylva Tellur. 109. 1838, descr.=Capparis Linn.

zeylanica Raf. 1.c., nom. (Capparis zeylanica Linn.). Ceylon. **OLOFUTON** Raf. Sylva Tellur. 108. 1838, descr.=Capparis

racemosum Raf. 1.c., descr. (Capparis cantoniensis Lour.).
Southern China=Capparis cantoniensis Lour. (C. pumila Champ.; C. sciaphila Hance); see Merrill, Trans. Am. Philos. Soc. II. 24(2):173. 1935.

ONCUFIS Raf. Sylva Tellur. 114. 1838, descr., nom. nov. provis. sub Mitostylis Raf. (Type Cleome guianensis Aubl.)=

Cleome Linn.

PERICLA Raf. Sylva Tellur. 112. 1838, descr.=Cleome Linn. imbricata Raf. 1.c., descr. (Peritoma "simplicifolia" sphalm.= Peritoma integrifolium Nutt.). Oregon=Cleome integrifolia (Nutt.) Torr. & Gray.

PERITOMA DC.=Cleome Linn.

luteum Raf. ex Jacks\*. Ind. Kew. 2:472. 1894 (Cleome lutea Hook.). North America.

\*simplicifolium Raf. Sylva Tellur. 112. 1838, nom. sub Pericla imbricata Raf., sphalm.=Peritoma integrifolium Nutt.= Cleome integrifolia (Nutt.) Torr. & Gray.

\*PEUTERON Raf. Sylva Tellur. 112. 1838, nom., sphalm.= sea

PLEUTERON Raf. Sylva Tellur. 109. 1838, descr., nom. nov. Breynia Plumier (1703); Linn. (1753), non J. R. & G. Forst. (1776) = Capparis Linn.

baduca Raf. I.c., nom. (Capparis baducca Linn.). West Indies, South America.

breynia Raf. 1.c., nom. (Capparis breynia Linn.). South America.

comosa Raf. 1.c., nom. (Capparis comosa Jacq.). Santo Domingo.

frondosa Raf. 1.c., nom. (Capparis frondosa Jacq.). South America = Capparis baducca Linn.

hastata Raf. I.c., nom. (Capparis hastata Jacq.). South America.

linearis Raf. 1.c., nom. (Capparis linearis Jacq.). West Indies.

siliquosa Raf. 1.c., nom. (Capparis siliquosa Linn.). West Indies

tenuis Raf. 1.c., nom. (Capparis tenuisiliqua Jacq.). Colombia.

torulosa Raf. I.c., nom. (Capparis torulosa Sw.). West Indies. \*PODANISIA Raf. Herb. Raf. 60. 1833, nom., sphalm. = Polanisia Raf. (1818).

\*graveolens Raf. 1.c., nom. Kentucky=Polanisia graveolens Raf.

\*POLANINA Raf. Western Rev. Miscel. Mag. 2:93. 1819, nom., sphalm.=Polanisia Raf. (1818).

\*graveolens Raf. 1.c., nom. Kentucky=Polanisia graveolens Raf.

†POLANISIA Raf. Fl. Ludovic. 167. 1817, nom.; Am. Monthly Mag. Crit. Rev. 2:267. 1818, nom., nota (Cleome dodecandra, sensu auct. Am.); op. cit. 4:188, 207. 1819, nom.; Am. Jour. Sci. 1:378. 1819, descr.; Jour. Phys. Chim. Hist. Nat. 89:98. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 238. 1820, descr.; op. cit. 1822, 2:1322. 1822, descr.; Spreng. Neue Entdeck. 2:208. 1821, nom.; Good Book 40. 1840,

graveolens Raf. Am. Jour. Sci. 1:379. 1819, descr. (Cleome dodecandra sensu Michx.); Jour. Phys. Chim. Hist. Nat. 89:98. 1819, nom. (Cleome dodecandra sensu Michx.); Isis von Oken 1820, 1: Lit. Anz. 238. 1820, nom. (Cleome dodecandra sensu Michx.); op. cit. 1822, 2:1323. 1822, descr. (Cleome dodecandra sensu Michx.); First Cat. Bot. Gard. Transply, Univ. 15, 1824, pp. (Cleome College Michx.) Gard. Transylv. Univ. 15. 1824, nom. (Cleome dodecandra auctt.); Med. Fl. 2:61. f. 74. 1830, descr.; Fl. Tellur. 1:42. 1836 [1837], nom. North America.

var. cespitosa Raf. Med. Fl. 2:62. 1830, nom.

elatior Raf. 1.c., descr. glabriuscula Raf. 1.c., nom. simplex Raf. 1.c., nom.

POLANYSIA Raf. Am. Monthly Mag. Crit. Rev. 4:194. 1819, nom., nota=Polanisia Raf.

\*POTAMISIA Raf. ex M'Murtrie, Sketch. Louisv. 224. 1819, nom., sphalm.=Polanisia Raf. (1818).

\*graveolens Raf. 1.c., nom. Kentucky=Polanisia graveolens Raf.

SCHEPERIA Raf. Sylva Tellur. 109. 1838, descr. = Schepperia Neck. (1793) = Cadaba Forsk. (1775).

juncea Raf. l.c., nom. (Cleome juncea Linn.). Africa=Schepperia juncea DC.=Cadaba juncea (Linn.) Harv. SCOLOSPERMA Raf. Sylva Tellur. 111. 1838, descr.=Cleome

Linn.

dendroides Raf. 1.c., descr. (Cleome dendroides Schultes; Hook. Bot. Mag. 61: t. 3296, 1834). Brazil. SIERUELA Raf. Sylva Tellur. 112. 1838, descr. (Aleome

Neck.) = Cleome Linn. viscosa Raf. 1.c., nom. (Cleome monophylla Linn.). India, Tropical Africa.

SILIQUARIA Forsk. = Cleome Linn.

arabica Raf. Sylva Tellur. 111. 1838, nom. nov. [Siliquaria glandulosa Forsk.]. Arabia=Cleome arabica Linn. STYLISTA Raf. Sylva Tellur. 112. 1838, descr. (Type Cleome

speciosissima Deppe ex Lindl.) = Cleome Linn.

TARENAYA Raf. Sylva Tellur. 111. 1838, descr. = Cleome Linn. (Neocleome Small, 1933).

spinosa Raf. 1.c., nom. (Cleome spinosa Jacq.). Tropical America (Neocleome spinosa Small).

TRICLANTHERA Raf. Sylva Tellur. 108. 1838, descr.=Cra-

taeva Linn.

corymbosa Raf. l.c., descr. (Capparis magna Lour.). Indo-China (Annam) = Crataeva magna (Lour.) DC.; see Mer-rill, Trans. Am. Philos. Soc. II. 24(2):172. 1935.

falcata Raf. 1.c., descr. (Capparis falcata Lour.). Indo-China (Annam)=Crataeva falcata (Lour.) DC.; see Merrill, l.c.

# RESEDACEAE

ARKOPODA Raf. Fl. Tellur. 3:73. 1836 [1838], descr.=Reseda

luteola Raf. 1.c., nom. (Reseda luteola Linn.). Europe, Asia Minor

ASTROCARPUS Neck.

purpurascens Raf. Fl. Tellur. 3:73. 1836 [1837], nom. (Reseda purpurascens Linn.). Spain (A. clusii J. Gay).

DIPETALIA Raf. Fl. Tellur. 3:73. 1836 [1837], descr.=

Oligomeris Camb. (1838), nom. conserv. (Ellimia Nutt.,

capensis Raf. 1.c., descr. (Reseda capensis Burm. f.; R. dipetala Ait.). South Africa=Oligomeris capensis (Burm. f.) Harv

HEXASTYLIS Raf. Fl. Tellur. 3:73. 1836 [1837], descr., non Hexastylis Raf. 1825=Caylusea A. St. Hil. (1837), nom. conserv. (Hexastylis Raf., 1837; Stylexia Raf., 1838).

arabica Raf. 1.c., nom. (Reseda "hexastylis" [hexagyna]

Forsk.). Arabia=Caylusea hexagyna (Forsk.) M. L. Green (C. canescens A. St. Hil., non Linn.).

canescens Raf. l.c., nom. [Reseda canescens A. St. Hil.]. Arabia=Caylusea hexagyna (Forsk.) M. L. Green.

PECTANISIA Raf. Fl. Tellur. 3:72. 1836 [1837], descr.= Reseda Linn.

phyteuma Raf. op. cit. 73, nom. [Reseda phyteuma Linn.]. Mediterranean region.

RESEDA Linn.

gallica Raf. Fl. Tellur. 3:72. 1836 [1837], nom. France. \*hexastylis Raf. op. cit. 73, nom. sub Hexastylis Raf. sphalm.=Reseda hexagyna Forsk.=Caylusea hexagyna (Forsk.) M. L. Green. Arabia.

STYLEXIA Raf. Fl. Tellur. 4:121. 1836 [1838], nom. nov. Hexastylis Raf. (1837), non Hexastylis Raf. (1825) = Caylusea St. Hil. (1837), nom. conserv. (Hexastylis Raf., 1837)

TEREIANTHES Raf. Fl. Tellur. 3:72. 1836 [1837], descr. = Reseda Linn.

alba Raf. 1.c., nom. (Reseda alba Linn.). Europe.

fruticosa Raf. 1.c., nom. (Reseda fruticosa Linn.). Europe= R. alba Linn.

glauca Raf. I.c., nom. (Reseda glauca Linn.). Spain.

undata Raf. 1.c., nom. (Reseda undata Linn.). Europe= R. alba Linn.

# SARRACENIACEAE

\*SARAZINA Raf. Aut. Bot. 33. 1840, nom.=Sarracenia Linn. acuta Raf. op. cit. 34, descr. Alabama.

\*adunca Raf. 1.c., descr. Florida.

\*flava Raf. 1.c., nom. (Sarracenia flava Linn.). Southeastern United States.

\*gibbosa Raf. op. cit. 33, descr. (Sarracenia purpurea Linn.). Canada to Virginia.

\*grandiflora Raf. 1.c., nom. alt. S. gibbosa Raf. = Sarracenia purpurea Linn.

\*heterophyla Raf. 1.c., descr. (Sarracenia heterophylla Eaton). New England=Sarracenia purpurea Linn.

\*parviflora Raf. l.c., descr. Florida.

\*rubra Raf. l.c., descr. (Sarracenia rubra Walt.). Carolina. \*variolaris Raf. op. cit. 34, nom. = Sarracenia variolaris Michx. Carolina.

\*venosa Raf. op. cit. 33, descr. Virginia to Florida=Sarracenia purpurea [var.] venosa (Raf.) Wherry, Bartonia 15:3, 1933.

\*SARAZINIA Raf. Fl. Tellur. 1:18. 1836 [1837], nom. nov.= Sarracenia Linn.

SARRACENIA Linn. (See also Sarazina Raf.).

nota (lencophylla) 1817 ("Ratpathe velu," i.e. Gouet, Rob. Voy. Louis. 3:331. 1807, nota, op. cit. 2:48. 1807, s.n., descr.). Florida (near Pensacola). [S. drummondii Croom, 1997] 18371.

\*SARRAZINIA Raf. New Fl. N. Am. 2:6. 1836 [1837], nom.= Sarracenia Linn.

### NEPENTHACEAE

NEPENTHES Linn.

\*cantharifera Raf. Fl. Tellur. 4:101. 1836 [1838], nom. Interpret. Rumph. Herb. Amb. 242. 1917 (Nov.) (N. phyllamphora Willd.).

\*scyphus Raf. l.c., nom. [Scyphus \*malacensis Juss. Gen. Pl. 444. 1789, nom.]. Malacca.

zeylanica Raf. l.c., nom. (Bandura Burm. Thes. Zeyl. 42. t. 17. 1737). Ceylon=Nepenthes distillatoria Linn.

### DROSERACEAE

ADENOPA Raf. Fl. Tellur. 3:37. 1836 [1837], descr.=Drosera

anglica Raf. ex Jacks\*. Ind. Kew. 1:39. 1893 (Drosera anglica Huds.). England, Europe.

#CINCINALIS Raf. Herb. Raf. 69. 1833, nom., subgen. Drosera Linn. (Type Drosera filiformis Raf.) = Drosera Linn.

DIONAEA Ellis

corymbosa Raf. Med. Fl. 2:217. 1830, nom. (Dionea); Loud. Gard. Mag. 8:246. 1832, nom., iter. Schlecht. Linnaea 8: Lit.-Ber. 70. 1833, iter. Britten, Jour. Bot. 38:227. 1900.

Carolina=D. muscipila Ellis.

sessiliflora Raf. Med. Fl. 1.c., nom. (Dionea); Loud. Gard. Mag. 8:246. 1832, nom., iter. Schlecht. et Britten, ll.cc.; Raf. Atl. Jour. 1:78. 1832, descr.; New Fl. N. Am. 4:17. 1836 [1838], descr. Carolina, cult. Philadelphia=D. muscipile Blice. cipila Ellis.

var. uniflora Raf. New Fl. N. Am. 4:17. 1836 [1838], descr

uniflora Raf. Atl. Jour. 1:79. 1832, descr.; Loud. Gard. Mag. 8:246. 1832, nom., iter. Schlecht. et Britten, Il.cc. Carolina,

cult. Philadelphia = Dionaea muscipila Ellis

DIONEA Raf. Anal. Nat. Tabl. Univ. 180. 1815, nom.; Am. Monthly Mag. Crit. Rev. 4:193. 1819, nom.; Med. Fl. 2:217. 1830, nom.; Atl. Jour. 1:78. 1832, nom.; Fl. Tellur. 1:11, 28. 1836 [1837], nom.; New Fl. N. Am. 4:17. 1836 [1838], nom., nota.=Diomaea Ellis.

\*muscipila Raf. Med. Fl. 2:217. 1830, nom.=Dionaea

muscipila Ellis.

DISMOPHYLA Raf. Fl. Tellur. 3:36. 1836 [1837], descr.= Drosera Linn. binata Raf. 1.c., descr. (Drosera binata Labill.; Hook. Bot.

Mag. 58: t. 3082. 1831). Australia.

DROSERA Linn.

Bot. (Paris) 1:227. 1809, descr.; Am. Monthly Mag. Crit. Rev. 2:174, 265. 1818, nom., nota; op. cit. 4:191. 1819, Rev. 2:174, 205. 1818, nom., nota; op. cit. 4:191. 1819, nom., nota; Jour. Phys. Chim. Hist. Nat. 89:257. 1819, nom., nota; Loud. Gard. Mag. 8:246. 1832, nom., nota; iter. Schlecht, Linnaea 8: Lit.-Ber. 69. 1833, iter. Britten, Jour. Bot. 38:226. 1900; Herb. Raf. 69. 1833, nom.; Life of Travels 15. 1835, nom.; Fl. Tellur. 3:37. 1836 [1837], nom. sub Filicirna Raf., descr.; Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom. Long Island, New Jersey. leionema Raf. Fl. Tellur. 3:37. 1836 [1837], nom. alt. Filicirna leionema Raf. Southern New Jersey. Ex descr.

cirna leionema Raf. Southern New Jersey. Ex descr.=

Drosera filiformis Raf.

sessiliflora Raf. Atl. Jour. 1:148. 1832, descr. Florida. Ex

descr.=Drosera capillaris Poir.

\*spatulosa Raf. Act. Soc. Linn. Bordeaux 6:263. 1834, nom., nota (Drosera rotundifolia auct. Am.), iter. Merr. Proc. Am. Philos. Soc. 86:87. 1942, op. cit. 90, nom. [Eastern United States] = D. rotundifolia Linn. uniflora Raf. Atl. Jour. 1:148. 1832, descr. Florida. Ex

descr.=Drosera brevifolia Pursh.

FILICIRNA Raf. Fl. Tellur. 3:37. 1836 [1837], descr.=Drosera

Linn.

filiformis Raf. 1.c., descr. Pine barrens of New Jersey = Drosera filiformis Raf. (D. tenuifolia Willd.).

leionema Raf. 1.c., descr. Southern New Jersey. Ex descr.= Drosera filiformis Raf.

tenuifolia Raf. I.c., descr. (Drosera tenuifolia Willd.; Hook. Bot. Mag. 63: t. 3540. 1836, as D. filiformis Raf.). New England, Long Island, New Jersey = Drosera filiformis Raf.

RORELLA Raf. Fl. Tellur. 3:36. 1836 [1837], descr.=Dros-

ophyllum Link (1806).

lusitanica Raf. 1.c., descr. (Drosera lusitanica Linn.). Southwestern Europe=Drosophyllum lusitanicum (Linn.) Link. #ROSSOLIS Raf. Fl. Tellur. 3:36. 1836 [1837], descr., subgen. Drosera Linn. [Rossolis Adans. 1763 ut gen.] = Drosera Linn. (Type Drosera acaulis Thunb.).

#### PODOSTEMACEAE

PODOSTEMON auctt.=Podostemum Michx. (1803).
repens Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818,
nom.; First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom. Alleghany Mountains or Ohio=Podostemum ceratophyllum Michx.

### CRASSULACEAE

\*AECTYSON Raf. Western Minerva 41. 1821, descr., iter. Fox, Science II. 12:212. 1900 = Sedum Linn.

\*sagittatum Raf. 1.c., descr., iter. Fox, 1.c. Kentucky = Sedum polystachyum Michx.

\*ATYSON Raf. Act. Soc. Linn. Bordeaux 6:267. 1834, descr. =

\*CABENIA Raf. Anal. Nat. Tabl. Univ. 174. 1815, nom. Quid ? \*CHETYSON Raf. Ann. Gén. Sci. Phys. 7:387. 1820, descr.= Sedum Linn.

\*sagittatum Raf. 1.c., descr. [Kentucky] = Sedum polysta-

chyum Michx.

COTYLARIA Raf. Princ. Somiol. 25. 1814, nom. nov. Cotyledon Linn.; Anal. Nat. Tabl. Univ. 186. 1815, nom. (Cotyledon Linn.); Fl. Tellur. 1:83. 1836 [1837], nom. (Cotyledon Linn.) = Cotyledon Linn. COTYLEDON Linn.

marginatum Raf. Atl. Jour. 1:79. 1832, descr., cult. (from

Mexico)

†PHEDIMUS Raf. Anal. Nat. Tabl. Univ. 174. 1815, nom.; Am. Monthly Mag. Crit. Rev. 1:438. 1817, descr. — Sedum Linn. sagittatus Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom. Kentucky.

stellatus Raf. Am. Monthly Mag. Crit. Rev. 1:438. 1817, descr. (Sedum stellatum Linn.); Fl. Ludovic. 168. 1817,

nom. Sicily, North Africa.

uniflorus Raf. Il.cc., descr., nom. (Sedum uniflorum Raf.);
Act. Soc. Linn. Bordeaux 6:267. 1834, nom. nota. Sicily.

RHODIOLA Linn.

integrifolia Raf. Atl. Jour. 1:146. 1832, nom. (Sedum rhodiola sensu Torr. Ann. Lyc. Nat. Hist. N. Y. 2:206. 1827, non Linn.). Rocky Mountains=Sedum rosea (Linn.) Scop. 13 var. integrifolium (Raf.) Hulten (Sedum rhodiola sensu Coult., non DC.; S. frigidum Rydb.).

SEDUM Linn. nuttalianum Raf. Atl. Jour. 1:146. 1832, nom. (Sedum "n. sp. Nutt."; Torr. Ann. Lyc. Nat. Hist. N. Y. 2:205. 1827, descr.). Rocky Mountains (S. \*nuttallii Eaton, Man. ed. 6, 334. 1833; S. torreyi G. Don, 1834; S. sparsiflorum Nutt., 1840).

rhodioloides Raf. 1.c., nom. alt. Rhodiola integrifolia Raf. = Sedum rosea (Linn.) Scop. var. integrifolium (Raf.) Hulten. uniflorum Raf. Car. Nuov. Gen. Sp. Sicil. 73. t. 18. f. 2. 1810, descr.; Stat. Gen. Sicil. 28. 1810, nom. Sicily.

# SAXIFRAGACEAE

ADENOGYNA Raf. New Fl. N. Am. 1:62. 1836, descr. (Saxifraga sarmentosa Linn. f.); Fl. Tellur. 2:67. 1836 [1837], nom. sub Rupifraga "Linn." [Sternb.] = Saxifraga Linn. sarmentosa Raf. ex Jacks\*. Ind. Kew. 1:67. 1893 (Saxifraga sarmentosa Linn. f.). Japan; spontaneous in Kentucky. ADENOGYNE Raf. ex Jacks\*. Ind. Kew. 1:38. 1893, nom.=

APHOMONIX Raf. Fl. Tellur. 2:65. 1836 [1837], descr.= Saxifraga Linn.

18 See Fernald, M. L. Sedum Rosea, not S. roseum. Rhodora 49:79-81. 1947. Professor Fernald emphatically does not approve of the decapitalization of specific names of this type which I have elected to follow in this work. In my personal opinion zoological usage, i.e., the decapitalization of all specific names, regardless of their origins, is preferable to that of the conservative botanists; see p. 11.

hederacea Raf. ex Jacks\*. Ind. Kew. 1:160. 1893 (Saxifraga hederacea Linn.). Southern Europe, Asia Minor.

#APLERIA Raf. New Fl. N. Am. 3:76. 1836 [1838], descr., subgen. Hydrangea Linn.

BLONDIA Neck. = Tiarella Linn.

biternata Raf. Fl. Tellur. 2:75. 1836 [1837], descr. (Tiarella biternata Vent.; Spiraea aruncus Linn. var. [hermaphrodita Michx.]). Saluda Mountains of Carolina = Astilbe biternata (Vent.) Britton.

trifoliata Raf. 1.c., descr. (Tiarella trifoliata Linn.). Eastern Siberia and Oregon.

DICONANGIA Adans. (1763); Raf. Aut. Bot. 7. 1840, nom., nota=Itea Linn.

\*heterophyla Raf. l.c., nom., nota (Itea virginica Linn.). New Jersey to Louisiana.

DITRICLITA Raf. New Fl. N. Am. 1:63. 1836, nom. sub Adenogyna Raf. = Saxifraga Linn.

\*DRUMONDIA Raf. Fl. Tellur. 2:72. 1836 [1837], nom. sub Pectiantia Raf. = Drummondia DC. (1830) = Mitella Linn. EVAIEZOA Raf. Fl. Tellur. 2:70. 1836 [1837], descr. = Chondro-

sea Haw. (1821) = Saxifraga Linn. aizoides Raf. ex Jacks\*. Ind. Kew. 1:938. 1893 (Saxifraga aizoides Linn.). Boreal and Arctic regions.

ajugifolia Raf. ex Jacks\*. l.c. (Saxifraga ajugfolia Linn.). Southern Europe.

androsacea Raf. ex Jacks\*. l.c. (Saxifraga androsacea Linn.). Europe.

biflora Raf. ex Jacks\*. 1.c. (Saxifraga biflora All.). Southern Europe.

bulbifera Raf. ex Jacks\*. 1.c. (Saxifraga bulbifera Linn.). Southern Europe.

burseriana Raf. ex Jacks\*. 1.c. (Saxifraga burseriana Linn.). Southern Europe.

callosa Raf. ex Jacks\*. 1.c. (Saxifraga callosa Sm.). Southern Europe = Saxifraga longifolia Lapeyr.

cesia Raf. ex Jacks\*. l.c. (Saxifraga caesia Linn.). Southern Europe.

cespitosa Raf. ex Jacks\*. 1.c. (Saxifraga caespitosa Linn.). Boreal and Arctic regions.

cuneata Raf. ex Jacks\*. l.c. (Saxifraga cuneata Willd.). Spain. diapensoides Raf. ex Jacks\*. l.c. (Saxifraga diapensoides Bell.). Southern Europe

†erosa Raf. ex S. Wats. Bibl. Ind. N. Am. Bot. 1:341. 1878, nom. in syn. (Saxifraga erosa Pursh). Eastern North America=S. micranthidifolia (Haw.) Britton.

escholtzi Raf. ex Jacks\*. 1.c. (Saxifraga eschscholtzii Sternb.). Arctic America.

\*eschscholtzii Raf. ex Wats. Bibl. Ind. N. Am. Bot. 1:341. 1878, nom. in syn. = praec.

exarata Raf. ex Jacks\*. l.c. (Saxifraga exarata Vill.). Southern Europe.

exilis Raf. ex Jacks\*. l.c. (Saxifraga exilis Steph.). Siberia and Arctic America.

geranioides Raf. ex Jacks\*. l.c. (Saxifraga geranioides Linn.). Pyrenees Mountains.

granulata Raf. ex Jacks\*. 1.c. (Saxifraga granulata Linn.). Europe.

†hieracifolia Raf. ex S. Wats. Bibl. Ind. N. Am. Bot. 1:342. 1878, nom. in syn. (Saxifraga hieracifolia Waldst. & Kit.). Boreal and Arctic regions.

hirta Raf. ex Jacks\*. 1.c. (Saxifraga hirta Donn). Europe= S. caespitosa Linn. var. palmata (Sm.) Engl. & Irmsch. ladanifera Raf. ex Jacks\* l.c. (Saxifraga ladanifera Lapeyr.).

Pyrenees Mountains=S. pentadactylis Lapeyr.=S. geranioides Linn.

†laurentiana Raf. ex S. Wats. Bibl. Ind. N. Am. Bot. 1:345. 1878, nom. in syn. (Saxifraga laurentiana Ser.). Northwestern North America=S. cernua Linn. var. laurentiana (Ser.) Engl.

mutata Raf. ex Jacks\*. l.c. (Saxifraga mutata Linn.). Southern Europe.

nutans Raf. ex Jacks\*. 1.c. (Saxifraga nutans D. Don). Alaska =Romanzoffiana unalaschkensis Chamisso.

†oppositifolia Raf. ex S. Wats. Bibl. Ind. N. Am. Bot. 1:343. 1878, nom. in syn. (Saxifraga oppositifolia Linn.). Boreal and Arctic regions.

palmata Raf. ex Jacks\*. l.c. (Saxifraga palmata Lapeyr.).
Pyrenees Mountains=S. geranioides Linn. var. palmata (Lapeyr.) DC.

pedatifida Raf. ex Jacks\*. 1.c. (Saxifraga pedatifida Ehrh.). Southern Europe=S. prostii Sternb.

EVAIEZOA (continued).

†pensylvanica Raf. ex S. Wats. Bibl. Ind. N. Am. Bot. 1: 344. 1878, nom. in syn. (Saxifraga pensylvanica Linn.); Burns, Am. Midl. Nat. 28:42. 1932 (Euaeizoa). Eastern North America.

†punctata Raf. ex S. Wats. 1.c., nom. in syn. (Saxifraga punctata Linn.). Siberia, Northwestern North America.

pungens Raf. Fl. Tellur. 2:71. 1836 [1837], descr. (Saxifraga burseriana sensu Lapeyr. Fig. Fl. Pyren. 35. 1801, i.e., S. burseriana sensu Jacq. Misc. 1: t. 17. 1778 = Saxifraga burseriana Linn, var. spinosa Pers. Syn. 1:488. 1805. Europe.

retusa Raf. ex Jacks\*. l.c. (Saxifraga retusa Gouan). Southern Europe.

†rivularis Raf. ex S. Wats. Bibl. Ind. N. Am. Bot. 1:345. 1878, nom. in syn. (Saxifraga rivularis Linn). Arctic and Boreal regions.

†serpyllifolia Raf. ex S. Wats. 1.c., nom. in syn. (Saxifraga serpyllifolia Pursh). Northwestern North America, Siberia. †sileniflora Raf. ex S. Wats. I.c., non. in syn. (Saxifraga sileniflora Hook.). Western North America.
trichodes Raf. Fl. Tellur. 2:71. 1836 [1837], descr. (Saxifraga

trichodes Scop.). Southern Europe.

trifurcata Raf. ex Jacks\*. 1.c. (Saxifraga trifurcata Schrad.).

†venosa Raf. ex S. Wats. Bibl. Ind. N. Am. Bot. 1:339. 1878, nom. in syn. (Saxifraga venosa Haw.). Boreal and Arctic regions=S. caespitosa Linn. subsp. eucaespitosa Engl. &

†HEMIEVA Raf. New Fl. N. Am. 1:63. 1836, nom. sub Adenogyna Raf.; Fl. Tellur. 2:70. 1836 [1837], descr.=Suksdorfia A. Gray (1880), nom. conserv. (Hemieva Raf., 1836-

ranunculifolia Raf. Fl. Tellur. 1.c., descr. (Saxifraga ranunculifolia Hook. Fl. Bor. Am. 1:246. t. 83. 1834). Columbia River, Oregon=Suksdorfia ranunculifolia (Hook.) Engl. (Boykinia ranunculifolia A. Gray).

richardsoni Raf. I.c., descr. (Saxifraga richardsonii Hook.). Arctic America=Boykinia richardsonii (Hook.) A. Gray

(Therofon richardsonii Wheelock).

HETERESIA Raf. Fl. Tellur. 2:69. 1836 [1837], nom. nov. provis., nota, sub Steiranisia heterantha Raf. (Type Saxifraga heterantha Hook. Fl. Bor. Am. 1:252. t. 78. 1834)= Steiranisia Raf. (1836-37) = Saxifraga Linn.

HEUCHERA Linn.

†acerifolia Raf. Med. Fl. 1:241. f. 49. 1828, descr., iter. Man. Med. Bot. 241. f. 49. 1841. Pennsylvania and Maryland to West Virginia, Kentucky and Tennessee=H. villosa Michx. ffoliosa Raf. Life of Travels 104. 1836, nom. 14 Pennsylvania. glauca Raf. Med. Fl. 1:244. 1828, descr., iter. Man. Med. Bot. 244. 1841. Cumberland Mountains=H. americana Linn. var. glauca (Raf.) Rosendahl.

†grandiflora Raf. First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom.; Jacks. Ind. Kew. 1:1142. 1893 nom. [Heuchera pulverulenta Raf. var. grandiflora Raf. Med. Fl. 1:244.

1828]. Kentucky=H. pubescens Pursh.
\*palmata Collins ex Raf. New Fl. N. Am. 4:66. 1836 [1838],
nom. in syn. sub Therofon napelloides Raf. North Carolina =Boykinia aconitifolia Nutt.

\*parviflora Raf. First Cat. Bot. Gard. Transylv. Univ. 14.

1824, nom. Kentucky.

pulverulenta Raf. Med. Fl. 1:243. 1828, descr. (H. pubescens
Pursh), iter. Man. Med. Bot. 243. 1841. New England to Pennsylvania=Heuchera pubescens Pursh.

var. grandiflora Raf. 11.cc., 244, nom.

rubra Raf. 11.cc., nom. reniformis Raf. 11.cc., descr. Cumberland Mountains and Kentucky=H. pubescens Pursh.

squamosa Raf. Il.cc., descr. Maryland, Virginia and Kentucky =H. villosa Michx.

var. confertiflora Raf. 11.cc., nom. laxiflora Raf. 11.cc., nom.

pumila Raf. Il.cc., nom. (err. pumita). viscida Pursh. Eastern North America=H. americana Linn. var. macrophylla Raf. ll.cc. 243, nom. (err. macrophyllo). maculata Raf. 11.cc., nom. scabra Raf. 11.cc., nom.

14 S. Watson's reference, Bibl. Ind. N. Am. Bot. 1:326. 1878, to Rafinesque's Medical Flora 244. is an error, the name not appearing there. The Life of Travels entry is the only one noted by me.

HEXAPHOMA Raf. Fl. Tellur. 2:66. 1836 [1837], descr.= Spatularia Haw. (1821) = Saxifraga Linn.

ferruginea Raf. 1.c., descr. (Saxifraga ferruginea Grah.; S. leucanthemifolia sensu Hook. Bot. Mag. 57: t. 2959. 1830). Rocky Mountains or Oregon = Saxifraga ferruginea Grah. (Saxifraga leucanthemifolia Michx. var. ferruginea A. Gray; Spatularia ferruginea Small).

petiolaris Raf. op. cit. 67, descr. (Saxifraga leucanthemifolia Michx.). Appalachian Mountains—Saxifraga michauxii Britton (Saxifraga leucanthemifolia Michx. 1803, non Lapeyr. 1801; Spatularia petiolaris Small; Hydatica petio-

laris Small).

pyrenaica Raf. l.c., descr. (Saxifraga leucanthemifolia Lapeyr. Fl. Pyr. 49. t. 25. 1801). Pyrenees and Alps of Europe= Saxifraga clusii Gouan.

viscida Raf. 1.c., in nota sub Hexaphoma? pyrenaica Raf., descr. (Saxifraga clusii Gouan). Pyrenees = Saxifraga clusii

Gonan.

\*HIRCULUS Raf. Anal. Nat. Tabl. Univ. 195. 1815, nom.; Fl. Tellur. 2:69. 1836 [1837], descr.=Leptasia Haw. (1821)= Saxifraga Linn.

punctatus Raf. Fl. Tellur. 1.c., descr. (Saxifraga hirculus Linn.). Europe, Asia, North America (Leptasia hirculus

HYDATICA Neck.; Raf. Fl. Tellur. 2:65. 1836 [1837], descr.= Saxifraga Linn.

cuneifolia Raf. ex Jacks\*. Ind. Kew. 1:1182. 1893 (Saxifraga cuneifolia Linn.). Europe.
foliolosa Raf. ex Jacks\*. l.c. (Saxifraga foliolosa R. Br.).
Boreal and Arctic regions=S. stellaris Linn.

geum Raf. ex Jacks\*. 1.c. (Saxifraga geum Linn.). Europe. hirsuta Raf. ex Jacks\*. 1.c. (Saxifraga hirsuta Linn.). Europe =S. geum Linn, subsp. hirsuta (Linn.) Engl. & Irmsch. umbrosa Raf. ex Jacks\*. 1.c. (Saxifraga umbrosa Linn.).

Europe

HYDRANGEA Linn.

†acuta Raf. Herb. Raf. 57. 1833, nom.; New Fl. N. Am. 3: 77. 1836 [1838], descr. Appalachian Mountains=H. arborescens Linn.

†amplifolia Raf. 1.c., nom.; op. cit. 78, descr. Pennsylvania= Hydrangea arborescens Linn.

†discolor Raf. 1.c., nom.; op. cit. 79, descr. Appalachian Moun-

tains=H. radiata Walt. glauca Raf. New Fl. N. Am. 3:77. 1836 [1838], descr. Alle-

ghany Mountains and Alabama=H. arborescens Linn.
†heterophyla Raf. Herb. Raf. 57. 1833, nom.; New Fl. N.
Am. 3:78. 1836 [1838], descr. Kentucky (Wasioto Mountains) = H. arborescens Linn.

paniculata Raf. New Fl. N. Am. 3:77. 1836 [1838], descr. "probably from Origon and Siberia."

†rotundifolia Raf. Herb. Raf. 57. 1833, nom.; New Fl. N. Am. op. cit. 78, descr. Virginia and Kentucky=H. arborescens Linn.

vulgaris Michx. var. carnea Raf. New Fl. N. Am. 3:77. 1836 [1838], descr. Alleghany Mountains=H. arborescens

\*IMBUTIS Raf. Herb. Raf. 54. 1833, nom.=Ribes Linn. \*ribesoides Raf. 1.c., nom., nota "Red current I p. 305" [Lewis

& Clark]. Northwestern United States=Ribes sp. IRAUPALOS Raf. Ann. Gén. Sci. Phys. 6:87. 1820, nom., sphalm. [Traupalos Raf. op. cit. 5:351. 1820] = Hydrangea

Linn. JUNIA Raf. Aut. Bot. 6. 1840, descr.; Pennell, Torr. Bot. Club 48:91. 1921, nom., nota, non Adans. 1763. Ex descr. Saxifragaceae, gen. dub.

triflora Raf. 1.c., descr.; Pennell, 1.c., nom. "Whether Floridan, Antillan or African I am not sure.

LEPTAXIS Raf. Fl. Tellur. 2:75. 1836 [1837], descr.=Tolmiea Torr. & Gray (1840), non. conserv. (Leptaxis Raf., 1837).
menziesi Raf. op. cit. 76, descr. (Heuchera menziesii Hook.
Fl. Bor. Am. 1:237. t. 80. 1834). Northwestern United
States=Tolmiea menziesii (Hook.) Torr. & Gray.

#MALAGEA Raf. Fl. Tellur. 2:65. 1836 [1837], nom., nota, subgen. Saxifraga Linn. (Type Saxifraga orientalis Jacq.). #MEGASTEIRA Raf. New Fl. N. Am. 3:76. 1836 [1838],

descr., subgen. Hydrangea Linn.

OREANTHUS Raf. Seringe Bull. Bot. 1:216. 1830, nom., iter. Schlecht. Linnaea 8: Lit.-Ber. 81. 1833=seq.

bracteatus Raf. Il.cc., nom. (Tiarella pentandra "Torr.," sphalm. [Tiarella bracteata Torr.]). Rocky Mountains= Heuchera bracteata (Torr.) Seringe.

OREOTRYS Raf. Atl. Jour. 1:145. 1832, descr.; Fl. Tellur. 2: 74. 1836 [1837], descr.=Oreanthus Raf. (1830)=Heuchera Linn.

bracteata Raf. Il.cc., nom., descr. (Tiarella bracteata Torr.).
Rocky Mountains=Heuchera bracteata (Torr.) Seringe.

**OZOMELIS** Raf. Fl. Tellur. 2:73. 1836 [1837], descr.=Mitella

varians Raf. l.c., descr. (Mitella trifida Grah.; Hook. Fl. Bor. Am. 1:241. t. 82. 1829). Oregon (Ozomelis trifida Rydb.). PARNASSIA Linn.

glauca Raf. Aut. Bot. 42. 1840, descr. Lake Ontario, Genessee River, and New Jersey = P. caroliniana Michx.

grandiflora Raf. op. cit. 41, descr. Unaka or Cheroki Mountains, North Carolina=P. caroliniana Michx.

nudata Raf. 1.c., descr. Unaka Mountains, North Carolina = P. asarifolia Vent.

palustris Linn. var. parvifolia Raf. l.c., descr. Alleghany Mountains = P. palustris Linn.

\*repanda Raf. op. cit. 42. descr. Taconic Mountains, Massachusetts-New York=P. caroliniana Michx.
 \*rotundifolia Raf. op. cit. 41, descr. Saranac Mountains, New

York=P. caroliniana Michx.

\*PECTANTIA Raf. Fl. Tellur. 2:73. 1836 [1837], nom.=seq. PECTIANTIA Raf. Fl. Tellur. 2:72: 1836 [1837], descr., nom. nov. Drummondia DC. (1830) = Mitella Linn.

mitelloides Raf. 1.c., descr. (Drummondia mitelloides DC.; Mitella pentandra Hook. Bot. Mag. 56: t. 2933. 1829). Rocky Mountains=Mitella pentandra Hook. (Pectiantia pentandra Rydb.).

\*PECTIANTHIA Raf. ex Rydb. Fl. Rocky Mount. 379. 1917, sphalm.=praec.

\*PETALEPIS Raf. Am. Monthly Mag. Crit. Rev. 3:99. 1818, nom. nov. provis. Lepuropetalon Ell. (1817).

PETALOSTEIRA Raf. Fl. Tellur. 2:74. 1836 [1837], descr.= Tiarella Linn.

laciniata Raf. I.c., nom. (Tiarella laciniata Hook. Fl. Bor. Am. 1:239, t. 77. 1834). Northwestern North America.

unifolia Raf. 1.c., nom. (Tiarella unifolia Retz.; "Hooker fl. bor. t. 81"). North America...? Mitella nuda Linn., et quoad syn. Hook. [Tiarella unifoliata Hook. Fl. Bor. Am. 1:238. t. 81, 1834] Tiarella unifoliata Hook.

\*unifoliata Raf. ex Small & Rydb. N. Am. Fl. 22:118. 1905, nom. in syn.=Tiarella unifoliata Hook.

PHILADELPHUS Linn.

\*discolor Raf. Aut. Bot. 149. 1840, descr. Appalachian Mountains of Carolina.

\*pubescens Raf. Seringe, Bull. Bot. 215. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 80. 1833. New York, near Lake Cayuga.=P. grandiflorus Willd.

PIAROPHYLA Raf. Fl. Tellur. 2:68. 1836 [1837], descr.=
Bergenia Moench (1794), nom. conserv., non Neck. (1790)
(Geryonia Schrank., 1818; Megasea Haw., 1821).
cordifolia Raf. 1.c., descr. (Saxifraga cordifolia sensu Haworth). Siberia=Bergenia crassifolia (Linn.) Fritsch.

elliptica Raf. 1.c., descr. (Saxifraga crassifolia Linn.). Siberia and northwestern America = Bergenia crassifolia (Linn.) Fritsch.

sibirica Raf. 1.c., descr. (Saxifraga foliis ovalibus Gmel. Fl. Sibir. 4:166. t. 66. 1769; Saxifraga crassifolia Linn; Curtis, Bot. Mag. 6: t. 196. 1793). Siberia = Bergenia crassifolia (Linn.) Fritsch (B. bifolia Moench).

PLEURENDOTRIA Raf. Fl. Tellur. 2:73. 1836 [1837], descr. nom. nov. Lithophragma [Lithofragma] Nutt. = Tellima R. Br. (1823).

parvifolia Raf. 1.c., descr. (Tellima parviflora Hook, Fl. Bor. Am. 1:239. t. 78. f. A. 1834). Oregon=Lithophragma parvifolia (Hook.) Nutt.

reniformis Raf. op. cit. 74, descr. (Lithofragma reniformis

Nutt.). Rocky Mountains or Oregon=praec.

PONISTA Raf. Fl. Tellur. 2:65. 1836 [1837], descr.=Muscaria

Haw. (1821) = Saxifraga Linn.

oregonensis Raf. op. cit. 66, descr. (Saxifraga petraea sensu Hook. Fl. Bor. Am. 1:245. 1834; Hook. Bot. Mag. 57: t. 3026. 1830). Oregon Mountains (i.e. Rocky Mountains) =Saxifraga tridactylitis (Linn.) Engl. & Irmsch., subsp. adscendens A. Blyth, forma americana Engl. & Irmsch. (Ponista ascendens (Linn.) Small), et, quoad Bot. Mag. t. 3026, Saxifraga petraea Linn.

petrea Raf. 1.c., descr. (Saxifraga petraea Linn.; Jacq. Ic. Pl. Rar. 1: t. 81. 1781-86). Alps of Europe.

RIBES Linn.

\*atropurpureum Raf. Herb. Raf. 54. 1833, nom. Rocky Mountains or Oregon (Lewis & Clark).

\*bicolor Raf. 1.c., nom. Rocky Mountains or Oregon (Lewis & Clark).

\*glutinosum Raf. l.c., nom. Rocky Mountains or Oregon (Lewis & Clark).

\*longiflorum Raf. op. cit. 40, nom. Upper Missouri (Mandan country) = Dakota.

RUPIFRAGA Raf. Fl. Tellur. 2:67. 1836 [1837], descr. [Rupifraga Sternb. 1831, ut sect. Saxifraga Linn.] = Saxifraga Linn.

cuscuteformis Raf. op. cit. 4:121. 1836 [1838], descr. (Saxifraga cuscutaeformis Lodd. Bot. Cab. 2: t. 186. 1821; Sims, Bot. Mag. 53: t. 2631. 1826). China=Saxifraga sarmentosa Linn., ? var.

sarmentosa Raf. op. cit. 2:68. 1836 [1837], descr. (Saxifraga sarmentosa Linn.; Curtis, Bot. Mag. 3: t. 92. 1790; S. stolonifera Jacq.). China, Japan=Saxifraga sarmentosa Linn.

#SALUDA Raf. Fl. Tellur. 2:75. 1836 [1837], provis., subgen. Blondia Raf., sub Blondia trifoliata Raf.= Tiarella Linn.

SAXIFRAGA Linn.

\*granularis Raf. Am. Florist f. 14. 1832, nom.=Saxifraga granulata Linn. Europe.

\*macrodon Raf. Herb. Raf. 50. 1833, nom. Rocky Mountains or Oregon.

\*spathulata Raf. l.c., nom. Rocky Mountains or Oregon.

†STERANISIA Raf. New Fl. N. Am. 1:63. 1836, nom. sub Adenogyna Raf.; Fl. Tellur. 2:68. 1836 [1837], descr.= Heterisia Raf. (1837)=Micranthes Haw. (1812)=Saxifraga Linn.

heterantha Raf. Fl. Tellur. 2:69. 1836 [1837], descr. (Saxifraga heterantha Hook. Fl. Bor. Am. 1:252. t. 78. 1834). Northwestern United States=Heterisia heterantha Small= Micranthes reflexa Small=Saxifraga mertensiana Bong.

punctata Raf. 1.c., descr. (Saxifraga punctata Linn.). Siberia. reflexa Raf. 1.c., descr. (Saxifraga reflexa Hook. Fl. Bor. Am. 1:249. t. 85. 1834). Boreal America.

TELESONIX Raf. Fl. Tellur. 2:69. 1836 [1837], descr.= Boykinia Nutt. (1834), non Boykiana Raf., 1825, nom. con-serv. (Therofon Raf., 1837; Telesonix Raf., 1837).

jamesi Raf. 1.c., descr. (Saxifraga jamesii Torr.; Therefon jamesii Wheelock). Rocky Mountains = Boykinia jamesii (Torr.) Engl.

\*THEREFON Raf. Good Book 46. 1840, nom., sphalm. = seq.

**THEROFON** Raf. New Fl. N. Am. **4**:66. 1836 [1838], descr., nom. nov. Boykinia Nutt., 1834, non Boykina Raf. (1825) (Boykinia Raf., 1840) = Boykinia Nutt. (1834), nom. conserv., vide supra.

napelloides Raf. 1.c., descr. (Boykinia aconitifolia Nutt.); Aut. Bot. 15. 1840, nom. Unaka or Iron Mountains, North Carolina = Boykinia aconitifolia Nutt. (Therofon aconitifolium Millsp.).

TRAPAULOS Raf. ex Reichb. Conspect. Reg. Veg. 92. 1828, nom., sphalm. = seq.

\*TRAUPALOS Raf. Ann. Gén Sci. Phys. 5:351. 1820, descr.; Isis von Oken 1821, 2:979. 1821, descr.; Alsogr. Am. 51. 1838, descr. sub Viburnum Linn. "either gen. subgen. v. sect." Ex descr. = Hydrangea Linn.

TULORIMA Raf. Fl. Tellur. 2:69. 1836 [1837], descr. = Saxifraga Linn.

cymbalaria Raf. 1.c., descr. (Saxifraga cymbalaria Linn.). Asia Minor.

**YAMALA** Raf. Fl. Tellur. 2:75. 1836 [1837], descr.=Heuchera

cylindrica Raf. l.c., descr. (Heuchera cylindrica Dougl.). Oregon.

### BRUNIACEAE

TRIMEIANDRA Raf. Fl. Tellur. 4:105. 1836 [1838], descr.= Lonchostoma Wikstr. (1818), nom. conserv. (Ptyxostoma Vahl. 1810).

spicata Raf. I.c., descr. (Passerina pentandra Thunb.). South Africa=Lonchostoma pentandrum (Thunb.) Druce (L. obtusiflorum Wikstr.),

### HAMAMELIDACEAE

HAMAMELIS Linn.

dentata Raf. New Fl. N. Am. 3:17. 1836 [1838], nom. alt.
Trilopus dentatus Raf. Canada and New England= Hamamelis virginiana Linn.

†estivalis Raf. Herb. Raf. 57. 1833, nom.; New Fl. N. Am. 3:16. 1836 [1838], nom. alt. Trilopus estivalis Raf. West-

ern Kentucky=Hamamelis virginiana Linn.

hyemalis Raf. New Fl. N. Am. 3:16. 1836 [1838], nom. nov. provis. Hamamelis virginica Linn. North America= Hamamelis virginiana Linn.

†nigra Raf. Herb. Raf. 57. 1833, nom.; New Fl. N. Am. 3:16. 1836 [1838], nom. alt. Trilopus nigra Raf. Alleghany Mountains, Pennsylvania and Virginia=Hamamelis virginiana

var. catesbiana Raf. New Fl. N. Am. 1.c., descr parvifolia Raf. Med. Fl. 1:230. 1828, descr., iter. Man. Med. Bot. 230. 1841; New Fl. N. Am. 3:17. 1836 [1838], nom. alt. Trilopus parvifolius Raf. North America = Hamamelis

virginiana Linn.
riparia Raf. New Fl. N. Am. op. cit. 16, nom. nov. provis. Hamamelis virginica Linn. North America=Hamamelis virginiana Linn.

rotundifolia Raf. 1.c., nom. alt. Trilopus rotundifolius Raf., nom. nov. Hamamelis macrophylla Pursh. Alabama= Hamamelis virginiana Linn.

LOMILIS Raf. Alsogr. Am. 5. 1838, descr.; Good Book 48. 1840, nom. =? Hamamelis Linn.

ciliata Raf. l.c., descr.; Aut. Bot. 75. 1840, nom. North Carolina (Unaka or Cheroki Mountains).

TRILOPUS (Mitch., 1748) Raf. New Fl. N. Am. 3:15. 1836 [1838], nom., nota (Hamamelis Linn.)=Hamamelis Linn. \*aestivalis Raf. ex S. Wats. Bibl. Ind. N. Am. Bot. 1:355. 1878, nom. in syn.=T. estivalis Raf.=Hamamelis vir-

giniana Linn. dentata Raf. New Fl. op. cit. 17, descr. Canada and New England=Hamamelis virginiana Linn.

estivalis Raf. op. cit. 16, descr. Western Kentucky=Hamamelis virginiana Linn.

hyemalis Raf. 1.c. 16, nom. nov. provis. Hamamelis virginica Linn.=Hamamelis virginiana Linn.

nigra Raf., 1.c., descr. Alleghany Mountains, Pennsylvania to

Virginia=Hamamelis virginiana Linn.

var. catesbiana Raf. l.c., descr.
parvifolia Raf. op. cit. 17, descr. (Hamamelis parvifolia Raf.). Alleghany Mountains of Pennsylvania—Hamamelis virginiana Linn.

riparia Raf. 1.c., nom. nov. provis. Hamamelis virginica

Linn.=Hamamelis virginiana Linn. rotundifolia Raf. op. cit. 16. descr. (Hamamelis macrophylla Pursh). Alabama, Georgia=Hamamelis virginiana Linn.

\*virginiana Raf. ex S. Wats. Bibl. Ind. N. Am. Bot. 1:355. 1878, nom. in syn. = seq. virginica Raf. op. cit. 15. descr. (Hamamelis virginica Linn.).

New England to Virginia=Hamamelis virginiana Linn.

### ROSACEAE

AGRIMONIA Linn.

†pumila Muhl. Cat. 47. 1813, nom. subnud.; Raf. Fl. Ludovic. 134. 1817, nom. Mississippi River.
\*sylvatica Raf. in M'Murtrie, Sketch. Louisv. 212. 1819,

nom. Kentucky.

\*AMELANCHUS Raf. Act. Soc. Linn. Bordeaux 6:266. 1834, nom. nov. Amelanchier Medic., iter. Merr. Proc. Am. Philos. Soc. 86:88. 1942, nota, op. cit. 89, nom.=Amelanchier Medic. (1789).

\*AMELANCUS Raf. Fl. Tellur. 3:5. 1836 [1837], nom. nov. Amelanchier Medic. (1789) (Amelancus F. Muell. ex

Vollm., 1914) = praec.

AMETRON Raf. Sylva Tellur. 160. 1838, descr.; Aut. Bot.

175. 1840, nom.=Rubus Linn.

pedatum Raf. op. cit. 161, descr. (Rubus pedatus Sm.; Hook.

F1. Am. Bor. 1:181. t. 61. 1834; Dalibarda pedata Sm.; Hook. F1. Am. Bor. 1:181. t. 61. 1834; Dalibarda pedata Steph.; Comaropsis pedata Ser.). Oregon=Rubus pedatus Sm. pyrifolium Raf. 1.c., descr. (Rubus pyrifolius Sm.). India. AMPOMELE Raf. Sylva Tellur. 160. 1838, descr.; Aut. Bot. 175. 1840. nom.=Rubus Linn., subgen. Idaeobatus Focke. triphyla Raf. 1.c., descr. (Rubus triphyllus Thunb.). Japan= Rubus parvifolius Linn.

AMYGDALUS Linn.=Prunus Linn.
\*glabra DC. ex Raf. Med. Fl. 2:191. 1830, nom., nota (nectarine) = Prunus persica (Linn.) Batsch. var. nectarina (Ait.) Maxim.

#APLENTA Raf. Aut. Bot. 163. 1840, descr., subgen. Potentilla Linn.

\*ARODIA Raf. Specch. Sci. 1:155. 1814, nom.; Anal. Nat. Tabl. Univ. 172. 1815, nom. (Rubus sp.) = Rubus Linn.

ARONIA Pers. = Amelanchier Medic. (1789).

cordata Raf. Med. Fl. 2:196. 1830, nom. = seq. subcordata Raf. ex DC. Prodr. 2:632. 1825, nom. in syn. sub Amelanchier ovalis DC. var. subcordata DC. North America=Amelanchier arborea (Michx. f.) Fernald, Rhodora 43:563. 1941.

ARUNCUS Adans.; Raf. Sylva Tellur. 152. 1838, descr. americanus Raf. 1.c., nom. [Spiraea aruncus Linn.]. North America=Aruncus dioicus (Walt.) Fernald (A. allegheniensis Rydb.).

vulgaris Raf. 1.c., nom. [Spiraea aruncus Linn.]. Europe= Aruncus sylvester Kostel. (1844); see Fernald, Rhodora 38:

181. 1936.

ATUNA Raf. Sylva Tellur. 153. 1838, descr. = Parinarium Juss.

(1789) (Parinari Aubl., 1775). racemosa Raf. 1.c., descr. (Atun Rumph. Herb. Amb. 1: t. 66. 1741). Moluccas=Parinarium glaberrimum Hassk. 1843 (P. laurinum A. Gray, 1854); see Merrill, Interpret. Rumph. Herb. Amb. 247. 1917.

AWAYUS Raf. Sylva Tellur. 151. 1838, descr. = Spiraea Linn.,

sect. Chamaedryon Seringe (1825).

japonica Raf. ex Jacks\*. Ind. Kew. 1:255. 1893 (Spirea japonica Raf., non Linn. f.). Japan=Spiraea thunbergii

†BASILIMA Raf. Specch. Sci. 1:156. 1814, nom.; Anal. Nat. Tabl. Univ. 173. 1815, nom. (Spiraea sp. Linn.); New Fl. N. Am. 3:75. 1836 [1838], descr. ("Sorbaria subg. Ser. Schizonotus Lindl."); Sylva Tellur. 152. 1838, descr.; Good Book 46. 1840, nom.=Sorbaria A. Br., (1864), nom. conserv. (Basilima Raf., 1814; Schizonotus Lindl., 1829).

pygmea Raf. New Fl. N. Am. 3:76. 1836 [1838], descr.

(Spiraea sorbifolia Linn. var. pygmaea Pallas, Fl. Ross. 1:38. t. 25. 1784, in textu var. pusilla, in lamina var. alpina pygmaea, in ed. alt. var. alpina); Sylva Tellur. 152. 1838, nom. Siberia (Sorbaria alpina Dipp., 1893; Spiraea

pallasi G. Don, 1832) = S. grandiflora (Sweet) Maxim. sorbifolia Raf. op. cit. 75, descr. (Spiraea sorbifolia Linn.; Pallas, Fl. Ross. 1:38. t. 24. 1784); Sylva Tellur. 152. 1838, nom. Siberia and New Siberia (i.e. N. W. America) = Sorbaria sorbifolia (Linn.) A. Br. (Schizonotus sorbifolius

Lindl.).

\*BERNULLIA Raf. Aut. Bot. 173. 1840, descr.=Bernoullia

Neck. (1791) = Geum Linn.

\*acaulis Raf. l.c., descr. (Geum montanum Linn. var. "minor" [\beta] Linn.). Styrian Alps=Sieversia montana (Linn.)

\*acuminata Raf. op. cit. 174, descr. (Geum strictum auct. Am.; G. canadense auct. Am.; Potentilla pensylvanica auct. Am.). Ohio, Kentucky, Tennessee.

\*confluens Raf. 1.c., descr. (Geum canadense auct. Am.; G. strictum auct. Am.; G. geniculatum auct. Am.). Alleghany

Mountains of Pennsylvania.

\*heterophyla Raf. op. cit. 173, descr. (Geum album auct. Am.; G. canadense auct. Am.; G. virginianum auct. Am.). Canada to Carolina.

var. integrifolia Raf. op. cit. 174, descr.

\*hybrida Raf. op. cit. 173, descr. (Bernoullia hybrida Neck.; Geum rivale Linn. var. [β] Linn.). Europe=Geum rivale Linn.

\*media Raf. op. cit. 174, descr. (Geum intermedium sensu Bess.). Siberia.

\*montana Raf. op. cit. 173, descr. (Geum montanum Linn.). Alps of Europe=Sieversia montana (Linn.) R. Br.

\*nutans Raf. l.c., descr. (Geum nutans Raf.; G. rivale auct. Am.). North America.

\*reptans Raf. l.c., descr. (Geum reptans Linn.; Bernoullia reptans Neck.). Alps of Europe=Sieversia reptans (Linn.)

\*rivalis Raf. l.c., nom. (Geum rivale Linn.). Europe.

BOOTIA Bigel.=Potentilla Linn.

\*cymosa Raf. Aut. Bot. 169. 1840, descr. (Geum rupestre Raf. vel G. viscosum Raf.). Taconic Mountains, New York. \*sericea Raf. 1.c., descr. (Potentilla arguta Lehm., non Pursh).

Upper Missouri, Oregon=? P. bipinnatifida Dougl. \*BOSSEKIA sensu Raf. Aut. Bot. 175. 1840, nom., non Neck.

(1790)=Waldsteinia Willd. (1799).

fragaroides Raf. l.c., descr. (Comaropsis fragarioides Ser.; Dalibarda fragarioides Michx.). Alleghany Mountains= Waldsteinia fragarioides (Michx.) Tratt.

CERASUS Linn.

\*arenaria Raf. Herb. Raf. 38. 1833, nom. Upper Missouri (Mandan country) = Dakota.

\*biflora Raf. op. cit. 56, nom. Alleghany Mountains.

\*cuneata Raf. l.c., nom. Alleghany Mountains=Prunus cuneata Raf. (1820).

\*triflora Raf. l.c., nom. Alleghany Mountains=Prunus triflora Raf. (1820)

CERCOCARPUS H.B.K.

montanus Raf. Atl. Jour. 1:146. 1832, nom. (Cercocarpus fothergilloides sensu Torr. Ann. Lyc. Nat. Hist. N. Y. 2:198. 1827, descr., non H.B.K.). Rocky Mountains (C. parvifolius Nutt. 1838).

#CHAMEDRYON Raf. New Fl. N. Am. 3:62, 68. 1836 [1838], nom. (Chamaedryon Seringe, ut sect. Spiraea), sect. vel

subgen, Spiraea Linn.

\*CHAMEDRYS Raf. Act. Soc. Linn. Bordeaux 6:265. 1836, nom. (Chamaedryon Seringe, ut sect. Spiraea), iter. Merr. Proc. Am. Philos. Soc. 86:87. 1942, op. cit. 89, nom., non Moench. (1794)=Spiraea Linn.

CHIMANTHUS Raf. Fl. Ludovic. 26. 1817, descr.; Herb. Raf. 55. 1833, nom.; New Fl. N. Am. 3:95. 1836 [1838], nom. = Laurocerasus (Tourn.) Reichb. (1828) = Prunus Linn.

amygdalina Raf. Fl. Ludovic. 1.c., descr. (Laurier amande Rob. Voy. Louis. 3:362. 1807); Med. Fl. 2:208. 1830, nom. (Prunus caroliniana Ait.); Herb. Raf. 55. 1833, nom. Louisiana = Prunus caroliniana Ait. (Laurocerasus caroliniana (Mill.) M. Roem).

CHRYSOBALANUS Linn.

incanus Raf. New Fl. N. Am. 3:26, 1836 [1838], descr. (Chrysobalanus oblongifolius Michx., var.). Florida (Geobalanus pallidus Small, 1913).

prunifolius Raf. l.c., descr. Florida = Chrysobalanus oblongifolius Michx. (Geobalanus oblongifolius Small).

retusus Raf. l.c., descr. Georgia, Alabama=praec.

COMARUM Linn. = Potentilla Linn.

†angustifolium Raf. Herb. Raf. 49. 1833, nom.; Fl. Tellur.
2:56. 1836 [1837], descr.; Aut. Bot. 170. 1840, nom., nota.
Oregon, Boreal America, Ohio=Potentilla palustris (Linn.) Scop.

var. parvifolium Raf. Aut. Bot. 170. 1840, descr. Labra-

dor=P. palustris (Linn.) Scop. var. parvifolia (Raf.) Fernald, Rhodora 16:10. 1914.

digitatum Raf. Fl. Tellur. 2:55. 1836 [1837], descr. (Comarum palustre auct. Am.); Aut. Bot. 170. 1840, nom., nota. Canada to New York=Potentilla palustris (Linn.) Scop.

palustre Linn.

var. stipulatum Raf. Fl. Tellur. 1.c., descr. Europe \*tomentosum Raf. Aut. Bot. 170. 1840, descr. ([Comarum palustre Linn.] var. villosum Pers.). Northern Europe=Potentilla palustris (Linn.) Scop. var. villosa (Pers.) Lehm.

\*COTONEA Raf. Fl. Tellur. 3:5. 1836 [1837], nom. nov. Cotoneaster Linn.

CUMBATA Raf. Sylva Tellur. 160. 1838, descr.; Aut. Bot. 175. 1840, nom.=Rubus Linn., subgen. Malachobatus Focke. alcefolia Raf. l.c., descr. (Rubus alceaefolius Poir.). Java. villosa Raf. l.c., descr. (Rubus rugosus Sm.). Nepal.

†CYLACTIS Raf. Fl. Ludovic. 167. 1817, nom.; Am. Jour. Sci. 1:377. 1819, descr.; Jour. Phys. Chim. Hist. Nat. 89:97. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 237. 1820, descr.; op. cit. 1822, 2:1322. 1822, descr.; Spreng. Neue Entdeck. 2:207. 1821, nom., nota. Bordeaux 6:266. 1834, nom., nota=Rubus Linn., subgen. Cylactis (Raf.) Focke.

Cylactis (Raf.) Focke.

lyncemontana Raf. Jour. Phys. Chim. Hist. Nat. 89:97. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 237. 1820, descr. New York (Catskill Mountains) = seq.

montana Raf. Am. Jour. Sci. 1:377. 1819, descr.; Spreng. Neue Entdeck. 2:207. 1821, nom. nota; Isis von Oken 1822, 2:1322. 1822, descr.; Aut. Bot. 175. 1840, nom., nota (Rubus canadensis sensu Torr.; R. triflorus Richards.; R. saratilis sensu Michx: R. barriflorus Nutt: R. geapoper. R. saxatilis sensu Michx.; R. parviflorus Nutt.; R. aegopo-

dioides Ser.). Canada to the northern Alleghany Mountains = Rubus pubescens Raf. (1811) (R. triflorus Richards.; R. americanus Britton).

CYLASTIS Raf. Sylva Tellur. 160. 1838, descr., sphalm.= Cylactis Raf. = Rubus Linn. subgen. Cylactis (Raf.) Focke. arctica Raf. ex Jacks\*. Ind. Kew. 1:680. 1893 (Rubus arcticus Linn.). Boreal and Arctic regions.

egopodioides Raf. ex Jacks\*. 1.c. (Rubus aegopodioides Ser.). North America=Rubus pubescens Raf. (Rubus triflorus

Richards.; R. americanus Britton).

\*montana Raf. Sylva Tellur. 1.c., nom., nota=Cylactis montana Raf.=praec.

DASIPHORA Raf. Aut. Bot. 167. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:95. 1921, nom.=Potentilla Linn.
\*\*alba Raf. op. cit. 168 [Potentilla alba Linn.]. Alps of

\*anserina Raf. 1.c., descr. [Potentilla anserina Linn.]. Europe, North America.

\*cristata Raf. l.c., descr. Siberia.
\*floribunda Raf. op. cit. 167, descr. (Potentilla floribunda Pursh). North America=P. fruticosa Linn.

\*jacquini Raf. op. cit. 168, descr. (Potentilla caulescens Linn.).

Europe (Austrian Alps).
\*nitida Raf. op. cit. 167, descr. (Potentilla nitida Linn.).
Europe (Tyrol and Carinthia).

Europe (Tyrol and Carinthia).

\*pimpineloides Raf. op. cit. 168, nom. sub D. cristata Raf.
[Potentilla pimpinelloides Linn.]. Armenia.

\*reptans Raf. l.c., nom. (Potentilla reptans Linn.). Europe.
riparia Raf. op. cit. 167, descr. (Potentilla fruticosa Linn.);
Pennell, Bull. Torr. Bot. Club 48:95. 1921, nom. Northern
Europe, Siberia—Potentilla fruticosa Linn.

\*speciosa Raf. l.c., descr. (Potentilla speciosa Willd.). Crete.
\*subacaulis Raf. op. cit. 168. descr. [Potentilla subacaulis

\*subacaulis Raf. op. cit. 168, descr. [Potentilla subacaulis Linn.]. Eurasia.

\*valderia Raf. op. cit. 167, nom., nota (Potentilla valderia Linn.). Italy.

\*DICTYSPERMA Raf. Aut. Bot. 175. 1840, nom.=Dyctisperma Raf.=Rubus Linn. \*DIMOPOGON Raf. ex Rydb. N. Am. Fl. 22:245. 1906, nom.

in syn., sphalm.=seq.

DRIMOPOGON Raf. Sylva Tellur. 151. 1838, descr., subgen. Spiraea Linn. (Type Spiraea tomentosa Linn.) = Spiraea Linn.

douglasi Raf. ex Jacks\*. Ind. Kew. 1:799. 1893 (Spiraea

douglasii Hook.). Western North America. ferruginea Raf. ex Jacks\*. 1.c. (Spirea ferruginea Raf.). Appalachian Mountains, Kentucky=Spiraea tomentosa

glomerata Raf. ex Jacks\*. l.c. (Spirea glomerata Raf.). Alleghany Mountains-Spiraea tomentosa Linn.

menziesii Raf. ex Jacks\*. 1.c. (Spiraea menziesii Hook.). Western North America.

parvifolia Raf. ex Jacks\*. 1.c. (Spirea parvifolia Raf.). Canada, New York=Spiraea tomentosa Linn.

rosea Raf. ex Jacks\*. 1.c. (Spirea rosea Raf.). Kentucky, Alabama=Spiraea tomentosa Linn. var. rosea

tomentosa Raf. ex Jacks\*. 1.c. (Spirea tomentosa Linn.). North America.

\*DRYADEA Raf. Specch. Sci. 1:155. 1814, nom.; Anal. Nat. Tabl. Univ. 172. 1815, nom. nov. Dryas Linn. DRYAS Linn.

crenata Raf. Aut. Bot. 170. 1840, descr. Alps of Europe, Canada.

DRYMOPOGON Raf. Specch. Sci. 1:156. 1814, nom.; Anal. Nat. Tabl. Univ. 173. 1815, nom. [Drymopogon Rupp., 1745] (Spiraea sp. Linn.); New Fl. N. Am. 3:61. 1836 [1838], nom.=Spiraea Linn.

DYCTISPERMA Raf. Sylva Tellur. 159. 1838, descr.=Rubus Linn.

apetalum Raf. ex Jacks\*. Ind. Kew. 1:805. 1893 (Rubus apetalus Poir.). Africa, Bourbon.

lasiocarpum Raf. ex Jacks\*. 1.c. (Rubus lasiocarpus Sm.). India.

rigidum Raf. ex Jacks\*. 1.c. (Rubus rigidus Sm.). South Africa

urticifolium Raf. ex Jacks\*. 1.c. (Rubus urticifolius Poir.)

ELEIOSINA Raf. Sylva Tellur. 150. 1838, descr.=Sibiraea Maxim. (1879).

ELEIOSINA (continued).

altaica Raf. ex Jacks\*. Ind. Kew. 1:829. 1893 (Spiraea altaica Pallas). Siberia=Sibiraea laevigata (Linn.) Maxim. (S. altaiensis C. K. Schneider).

bracteata Raf. ex Jacks\*. 1.c. (Spirea bracteata Raf.). Siberia and "New Siberia" [N.W. America] = praec.

cuneifolia Raf. ex Jacks\*. 1.c. (Spirea cuneifolia Raf.). Ore-

gon and California=Spiraea menziesii Hook.

levigata Raf. ex Jacks\*. l.c. (Spiraea laevigata Linn.). Siberia=Sibiraea laevigata (Linn.) Maxim. obovata Raf. ex DC. Prodr. 2:544. 1825, in syn. sub Spiraea salicifolia Linn. var. latifolia Willd. [New York]=Spiraea salicifolia Linn.

triloba Raf. ex Jacks\*. l.c. (Spiraea triloba Murr.) = Spiraea trilobata Linn. Siberia, China.
virgata Raf. ex Jacks\*. l.c. (Spirea virgata Raf.). Boreal
America and Siberia=Spiraea hypericifolia Linn.

EPICOSTORUS Raf. Atl. Jour. 1:144. 1832, descr.; New Fl. N. Am. 3:74. 1836 [1838], descr.; Sylva Tellur. 151. 1838, descr.; Good Book 46. 1840. nom. = Physocarpus (Cambess.)

Maxim. (1879), nom. conserv. (Opulaster Medic., 1799). montanus Raf. Atl. Jour. l.c. nom. (Spiraea monogyna Torr.); New Fl. N. Am. l.c., descr. (Spiraea monogyna Torr.); Sylva Tellur. 1.c., nom. (Spiraea monogyna Torr.). Rocky Mountains=Physocarpus monogynus (Torr.) Coult. (Opu-

laster monogynus O. Kuntze).

\*ESPICOSTORUS Raf. Act. Soc. Linn. Bordeaux 6:266. 1834, descr.; Merr. Proc. Am. Philos. Soc. 86:88, 90. 1942, nom., nota, sphalm.=Epicostorus Raf. (1832)=Physocarpus (Cambess.) Maxim. (1879), nom. conserv. (Opulaster Medic., 1799).

\*montanus Raf. l.c., nom.; Merr. l.c., nom.=Epicostorus montanus Raf.=Physocarpus monogynus (Torr.) Coult. (Opulaster monogynus O. Kuntze). North America.

FRAGARIA Linn

\*elatior Raf. Atl. Jour. 1:152. 1832, descr. Lake Erie or Lake Ontario.

ludoviciana Raf. Fl. Ludovic. 150. 1817, nom., nota. Loui-

serotina Raf. Atl. Jour. 1:152. 1832, descr. Lake Erie or Lake Ontario. vesca Linn.

var. aprica Raf. Med. Fl. 1:192. 1828, descr., iter. Man. Med. Bot. 192. 1841. New Jersey to Virginia. clandestina Raf. Il.cc., descr. New York, Ohio.

glabra Raf. 11.cc., descr. Ohio and Cumberland and Tennessee Rivers.

pendula Raf. 11.cc., descr. New England, Pennsylvania.

pumila Raf. 1l.cc., descr. Virginia. sylvatica Raf. 1l.cc., descr. Eastern United States. uniflora Raf. op. cit. 191, fig. 38, descr. Eastern

United States.
\*GERVASIA Raf. Specch. Sci. 1:155. 1814, nom.; Anal. Nat. Tabl. Univ. 173. 1815, nom. (Poterium sp.)=Poterium

Linn. GEUM Linn.

\*intermedium Raf. Herb. Raf. 50. 1833, nom. Rocky Mountains or Oregon.

\*latifolium Raf. Aut. Bot. 172. 1840, descr. (G. macrophyllum

Willd.). Siberia. \*nutans Raf. Am. Monthly Mag. Crit. Rev. 2:344. 1818. nom. (Geum rivale sensu Bigelow); Aut. Bot. 173. 1840, nom. in syn. sub Bernullia nutans Raf. Eastern North America=Geum rivale Linn.

ochroleucum Raf. Med. Repos. II. 5:354. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. Eastern United States. \*odoratissimum Raf. Med. Fl. 2:233. 1830, nom.=Geum

radiatum Michx.

pinnatifidum Raf. Med. Repos. et Jour. Bot. 11.cc., nom. Eastern United States.

\*renifolium Raf. Aut. Bot. 172. 1840, descr. "Origon or Siberia."

\*rupestre Raf. op. cit. 169. 1840, nom. in syn. sub Bootia cymosa Raf. New York.

virginianum Linn.; Raf. Med. Fl. 1:220, fig. 43. 1828, descr., iter. Man. Med. Bot. 221. 1841. Eastern United States.

var. lanceolatum Raf. op. cit. 221, nom. macrophyllum Raf. 11.cc., nom. ochroleucum Raf. 11.cc., nom. ramosum Raf. 11.cc., nom. uniflorum Raf. 11.cc., nom.

\*viscosum Raf. Aut. Bot. 169. 1840, nom. in syn. sub Bootia

\*GEUNCUS Raf. Aut. Bot. 172. 1840, nom. nov. provis. Geum

\*GEUNSIA Raf. Aut. Bot. 200. 1840, sub Cent. XIII, nom. nov. Geum Linn. (non Blume, 1823, nec. Moç. & Sessé, 1828, nec Neck., 1790) = Geum Linn. GILLENIA Moench.

stipulacea Nutt. Eastern North America.

var. pinnatifida Raf. Med. Fl. 1:226. 1828, iter. Man. Med. Bot. 226. 1841. nom.; Casket 1830: 376. 1830, nom.; Sat. Eve. Post. 9(474): [1]. 1830, nom. uniflora Raf. Med. Fl., Man. Med. Bot., et Sat. Eve. Post 11.cc., nom.

variegata Raf. Il.cc., nom.

virgata Raf. Il.cc., nom.
\*GOMARUM Raf. Anal. Nat. Tabl. Univ. 172. 1815, nom.,
sphalm.=Comarum Linn.

ICOTORUS Raf. Seringe Bull. Bot. 1:216. 1830, nom., iter. Schlecht. Linnaea 8: Lit.-Ber. 81. 1833=Physocarpus (Cambess.) Maxim. (1879), nom. conserv. (Opulaster Medic., 1799)

montanus Raf. 1.c., nom., iter. Schlecht. 1.c. (Spiraea monogyna Torr.). Western North America = Physocarpus monogynus (Torr.) Coult. (Neillia monogyna Greene; N. torreyi

S. Wats.; Opulaster monogynus O. Kuntze).

MALUS Linn.

\*fusca Raf. Herb. Raf. 54. 1833, nom. [Pyrus fusca Raf.]. Northwestern United States (Lewis & Clark).

†microcarpa Raf. Fl. Ludovic. 171. 1817, nom.; Am. Monthly Mag. Crit. Rev. 2:206. 1818, descr.; DC. Prodr. 2:632. 1825, nom. in syn. sub Amelanchier ovalis Raf. var. subcordata DC. New York (Fishkill, Newburgh, Catskill) = Amelanchier arborea (Michx. f.) Fernald.

MANTEIA Raf. Sylva Tellur. 161. 1838, descr.; Aut. Bot. 175.

1840, nom.=Rubus Linn.

acaulis Raf. Sylva Tellur. 1.c., nom. (Rubus acaulis Michx.; R. stellatus Sm. Exot. Bot. 2: t. 86. 1806-07). Boreal and Arctic regions=Rubus acaulis Michx.

and Arctic regions=Rubus acaulis Michx.
stellatus Raf. I.c., nom. (Rubus stellatus Sm. Pl. Ic. Ined.
3: t. 64. 1791). North America.

#MARUM Raf. Fl. Tellur. 3:85. 1836 [1837], descr., subgen.
Chamedrys Raf.=Spiraea Linn.

\*OLIGACIS Raf. Specch. Sci. 1:155. 1814, nom.; Anal. Nat.
Tabl. Univ. 172. 1815, nom. "R[ubus] sp." Linn.; Am.
Jour. Sci. 1:377. 1819, nom.=Rubus Linn.

\*OROSPODIAS Raf. Atl. Jour. 1:182. 1833, descr.; Act. Soc.
Linn. Bordeaux 6:265. 1834, descr., iter. Merr. Proc. Am.
Philos. Soc. 86:87. 1942, op. cit. 90, nom.; Herb. Raf. 55.
1833, nom. (Type Prunus rotundifolia Raf., P. corymbosa 1833, nom. (Type Prunus rotundifolia Raf., P. corymbosa Raf.)=Prunus Linn.

\*rotundifolia Raf. Herb. Raf. 53, 1833, nom., nota [Prunus

rotundifolia Raf.]. Cult. Philadelphia. PADUS Linn.=Prunus Linn.

\*maritima Raf. Herb. Raf. 56. 1833, nom. [Prunus maritima Wagenh.]. Atlantic shores of North America.

\*odorata Raf. l.c., nom. Appalachian Mountains.
\*salicifolia Raf. l.c., nom. Alleghany Mountains.

PANCOVIA Heist.; Raf. Fl. Tellur. 2:55. 1836 [1837], sub
Comarum Linn.; Sylva Tellur. 159. 1838, nom., nota= Potentilla Linn.

angustifolia Raf. Fl. Tellur. 2:56. 1836 [1837], nom. alt. Comarum angustifolium Raf. Oregon or northwestern America=Potentilla palustris (Linn.) Scop. digitata Raf. op. cit. 55, nom. alt. Comarum digitatum Raf.

(Comarum palustre sensu bot. Am.). North America = Potentilla palustris (Linn.) Scop.

palustris Raf. l.c., nom. alt. Comarum palustre Linn.; Jacks. Ind. Kew. 2:406. 1894; Nieuwl. Am. Midl. Nat. 4:68. 1915. Europe=Potentilla palustris (Linn.) Scop.

#PENTORILA Raf. Aut. Bot. 163. 1840, descr., subgen. Potentilla Linn. (Type Potentilla dichotoma Raf.).
\*PHYLOCARPOS Raf. Act. Soc. Linn. Bordeaux 6:265. 1834, sphalm. vel nom. nov. Physocarpos Cambess. 1824 (pro sect. Spiraea Linn.); iter. Merr. Proc. Am. Philos. Soc. 86:87. 1942, op. cit. 90, nom.=Physocarpus (Cambess.) Maxim. (1879), nom. conserv. (Opulaster Medic., 1799).

PHYSOCARPA Raf. New Fl. N. Am. 3:73. 1836 [1838], descr., subgen. Spiraea Linn. (Spiraea Linn. sect. Physocarpos Ser., 1824); Sylva Tellur. 151. 1838, descr., pro gen. = Physocarpus (Cambess.) Maxim. (1879), nom. conserv. (Opulaster Medic., 1799). glabra Raf. New Fl. 1.c., nom. alt. P. opulifolia Raf. (Spiraea opulifolia Linn. var. glabra Hook.). Europe, Siberia, Oregon=Physocarpus opulifolius (Linn.) Maxim.

opulifolia Raf. l.c., descr.; Sylva Tellur. 151. 1838, nom. (Spiraea opulifolia Linn.). Europe, Siberia, Oregon=

Captraea opulifolia Linn.). Europe, Siberia, Oregon Physocarpus opulifolius (Linn.) Maxim.
riparia Raf. l.c., descr. (Spiraea opulifolia Linn. var. tomentella DC.); Sylva Tellur. 151. 1838, nom. Canada to Louisiana and Missouri Physocarpus opulifolius (Linn.) Maxim. (Opulaster opulifolius O. Kuntze).

var. arborea Raf. l.c., nom.
parvifolia Raf. l.c., nom.
tomentosa Raf. op. cit. 74, descr.; Sylva Tellur. 151. 1838,

tomentosa Raf. op. cit. 74, descr.; Sylva Tellur. 151. 1838, nom. (Spiraea capitata Pursh; S. opulifolia Linn. var. tomentosa Hook.). Oregon=Physocarpus capitatus (Pursh) O. Kuntze.

\*PHYSOTHECA Raf. New Fl. N. Am. 3:73. 1836 [1838], nom. alt. Physocarpa Raf. = Physocarpus (Cambess.) Maxim.

(1879), nom. conserv. (Opulaster Medic., 1799).

POTENTILLA Linn.

angustifolia Raf. Fl. Tellur. 2:56. 1836 [1837], nom. alt. Comarum angustifolium Raf. Northwestern United States

=P. palustris (Linn.) Scop.

\*argyrops Raf. Aut. Bot. 165. 1840, descr. (P. argentea auct. Am.). New England, New York=Potentilla argentea Linn.
\*atrosanguinea Raf. 1.c., descr. Himalayan Mountains.
\*canescens Raf. op. cit. 166. 1840, descr. (P. canescens Bess.).

Bohemia.

\*cespitosa Raf. op. cit. 164, descr. Alleghany Mountains. \*ciliata Raf. op. cit. 163, descr. Labrador=P. maculata Pourret.

\*cinerea Raf. op. cit. 165, nom. sub P. argyrops Raf., non P.

cinerea Chaix = P. argentea Linn.

\*dichotoma Raf. op. cit. 163, descr. Oregon.
digitata Raf. Fl. Tellur. 2:55. 1836 [1837], nom. alt. Comarum

digitatum Raf. United States, Canada = Potentilla palustris (Linn.) Scop.

\*egyptiaca Raf. Aut. Bot. 166. 1840, descr. Egypt.

\*flexuosa Raf. op. cit. 164, descr. Labrador. \*gracilis Raf. Herb. Raf. 49. 1833, nom. Rocky Mountains or Oregon.

\*nepalensis Raf. Aut. Bot. 165. 1840, descr. Nepal and the

Himalayan Mountains.

\*pallida Raf. op. cit. 166, descr. Carpathian Mountains. \*pectinata Raf. Herb. Raf. 38. 1833, nom.; Aut. Bot. 164. 1840, descr. Boreal America and Upper Missouri (Mandan country)=Dakota (P. littoralis Rydb., 1896).

POTERIUM Linn. = Sanguisorba Linn. \*angustifolium Raf. Aut. Bot. 170. 1840, descr. Sicily and Greece.

\*heterophylum Raf. op. cit. 171, descr. Alps of Bavaria and Austria.

\*microphylum Raf. 1.c., descr. Scotland, Norway.

PRUNUS Linn.

\*\*aurantiaca Raf. Herb. Raf. 56. 1833, nom.; Act. Soc. Linn.
Bordeaux 6:265. 1834, nom.; Merr. Proc. Am. Philos. Soc.
86:87, 90. 1942, nom. Kentucky.
coccinea Raf. Fl. Ludovic. 135. 1817, descr. ("Plumb," Bartram Trav. 423. 1791); Med. Fl. 2:253. 1830, nom.; Herb.
Paf. 55. 1833, nom. Alabama or Louisiana (Bartlatanta). Raf. 55. 1833, nom. Alabama or Louisiana (Pearl Island) = P. americana Marsh.

\*corymbosa Raf. Atl. Jour. 1:182. 1833, nom. nov. Prunus

rotundifolia Raf. Rocky Mountains.

tcuneata Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818, nom.; Ann. Nat. Ann. Synop. 11. 1820, descr. Alleghany Mountains of Pennsylvania=P. pumila Linn. var. cuneata (Raf.) L. H. Bailey=P. susquehannae Willd. (1809).

\*missurica Raf. Herb. Raf. 56. 1833, nom. Missouri.

\*patula Raf. First Cat. Bot. Gard. Transylv. Univ. 12. 1824,

nom. Kentucky.

\*pendula Raf. Western Rev. Miscel. Mag. 2:93. 1819, nom.;

Herb. Raf. 56. 1833, nom. Wasioto or Cumberland Moun-

tains and Kentucky.

†rotundifolia Raf. Med. Fl. 2:253. 1830, nom.; Atl. Jour. 1:78. 1832, descr. Rocky Mountains=Prunus corymbosa

\*rupestris Raf. Fl. Ludovic. 171. 1817, nom.; Am. Monthly Mag. Crit. Rev. 2:206. 1818, descr. Catskill Mountains, New York.

\*sessilis Raf. Act. Soc. Linn. Bordeaux 6:265. 1834, nom. (sphalm. sessislis); Merr. Proc. Am. Philos. Soc. 86:87, 90. 1942, nom. Eastern North America.

\*sessilifolia Raf. Herb. Raf. 56. 1833, nom. Pine barrens [New Jersey].

stenophylla Raf. Fl. Ludovic. 98. 1817, descr. (Cerasus canadensis sensu Rob. Voy. Louis. 3:495. 1807); Med. Fl. 2:253. 1830, nom.; New Fl. N. Am. 3:95. 1836 [1838], nom. (stenophyla). Louisiana=P. angustifolia Marsh.

triflora Raf. Ann. Nat. Ann. Synop. 11. 1820, descr. Pennsvlvania.

\*versicolor Raf. Med. Fl. 2:253. 1830, nom. North America.

PYRUS Linn.

fusca Raf. Med. Fl. 2:254. 1830, nom. subnud., sphalm. fusca)
"Oregon Crabapple." Northwestern North America = Malus
\*fusca (Raf.) Raf. Herb. Raf. 54. 1833; Schneider Ill. Handb. Laubh. 1:723. 1906; Repert. Sp. Nov. 3:178. 1906 (Pyrus rivularis Dougl.; Malus rivularis M. Roem.).

\*fuscata Raf. New Fl. N. Am. 3:95. 1836 [1838], nom.
Northwestern United States (Lewis & Clark)=praec.

ludoviciana Raf. Fl. Ludovic. 158. 1817, nom. provis., nota. Northwestern Louisiana.

\*pirainus Raf. Specch. Sci. 2:173. 1814, descr. Sicily. Prob. =Pyrus amygdaliformis Vill. var. cuneifolia (Vis.) Bean. pyraina Raf. ex Gussone, Fl. Sic. Syn. 2:831. 1843=praec.

QUINASIS Raf. Sylva Tellur. 150. 1838, descr.=Polylepis

Ruiz & Pavon (1794).

villosa Raf. 1.c., descr. (Polylepis villosa H.B.K.). Peru. \*RHODALIX Raf. Specch. Sci. 1:156. 1814, nom.; Anal. Nat. Tabl. Univ. 173. 1815, nom. (Spiraea sp.); Sylva Tellur. 152. 1838, nom. sub Thecanisia Raf.; New Fl. N. Am. 3: 61. 1836 [1838], nom. = Spiraea Linn.

ROSA Linn.15

acuminata Raf. Ann. Gén. Sci. Phys. 5:216. 1820, descr.; Kentucky Gaz. 36(32):[3]. 1822, nom. Indiana=? R. dasistema Raf.

\*aquatica Raf. Ann. Gén. Sci. Phys. op. cit. 219, nom. nov.

Rosa palustris sensu Dum. Cours.

carolina Linn.; Raf. op. cit. 214, descr. Eastern North America.

var. alba Raf. I.c., descr. corymbosa Raf. 1.c., descr. erecta Raf. l.c., descr. hispida Raf. l.c., descr. patula Raf. l.c., descr. pimpinellifolia Raf. 1.c., descr. uniflora Raf. 1.c., descr.

\*collina Raf. First Cat. Bot. Gard. Transylv. Univ. 12. 1824,

cursor Raf. Ann. Gén. Sci. Phys. 5:215. 1820, descr.; Kentucky Gaz. 36(32):[3]. 1822, nom.; First Cat. 1.c., nom. Cumberland Mountains, Kentucky=R. setigera Michx. var. tomentosa Torr. & Gray.

dasistema Raf. Ann. Gén. Sci. Phys. 5:219. 1820, descr.; Kentucky Gaz. l.c., nom. Ohio, Indiana. (West Virginia to Indiana and Missouri; Rydb. N. Am. Fl. 22:497. 1918).

elegans Raf. op. cit. 214, descr.; Kentucky Gaz. 1.c., nom. New York (Hudson River)=R. palustris Marsh.

enneaphylla Raf. Précis Découv. Somiol. 35. 1814, descr.; Jour. Bot. (Desv.) 4:268. 1814, descr.; Ann. Gén. Sci. Phys. 5:214. 1820, descr.; Kentucky Gaz. l.c., nom. Pennsylvania, Ohio=R. palustris Marsh.

flexuosa Raf. Précis, et Jour. Bot. Il.cc., descr.; Ann Gén. Sci. Phys. 5:216. 1820, descr.; Kentucky Gaz. l.c., nom.

Maryland=R. canina Linn.

glandulosa Raf. Ann. Gén. Sci. Phys. 5:213. 1820, descr. New York=? R. palustris Marsh.

var. cuneifolia Raf. 1.c., descr.

globosa Raf. op. cit. 215, descr.; Kentucky Gaz. l.c., nom. Indiana, Illinois=? R. palustris Marsh. kentukensis Raf. op. cit. 213, descr.; Kentucky Gaz. l.c., nom. Kentucky=R. setigera Michx. var. tomentosa Torr. & Gray.

\*levigata Raf. op. cit. 218, descr. Pennsylvania, New Jersey, Ohio=R. laevigata Michx.

lucida Ehrh. Eastern North America. var. glauca Raf. op. cit. 217, descr. uniflora Raf. l.c., descr.

†macrocarpa Raf. Med. Fl. 2:258. 1830, descr. (Ind. Kew. 2:735. 1895 "Nutt. ex Raf.") non Mérat (1812). North America=R. spauldingii Crépin (1876).

<sup>&</sup>lt;sup>15</sup> See Zable, H. Rafinesque'sche Rosen-spezies. Mitt. Deutsch. Dendr. Ges. 1899:76-77. 1899; a criticism.

ROSA (continued).

†nivea Raf. Ann. Gén. Sci. Phys. 5:218. 1820, descr.; Kentucky Gaz. 1.c., nom., nota. Illinois (R. rafinesquii Seringe,

1825, non DC., 1817), sp. dub.

obovata Raf. op. cit. 217, descr.; Kentucky Gaz. l.c., nom.,

nota. New York (Catskill Mountains)=R. carolina Linn.

var. grandiflora (Bak.) Rehd.

parviflora Ehrh. Eastern North America=R. virginiana Mill. var. angustifolia Raf. op. cit. 212, descr.

clandestina Raf. 1.c., descr. glabra Raf. 1.c., descr. pectinata Raf. 1.c., descr.

pubera Raf. l.c., descr.
pratensis Raf. op. cit. 215, descr.; First Cat. Bot. Gard.
Transylv. Univ. 12. 1824, nom.; Kentucky Gaz. l.c., nom. Indiana, Illinois, Kentucky=R. carolina Linn.

var. geminata Raf. Ann. Gén. Sci. Phys. l.c., descr. pusilla Raf. Ann. Nat. Ann. Synop. 11. 1820, descr.; Ann. Gén. Sci. Phys. 5:220. 1820, descr.; Kentucky Gaz. l.c., nom. Western Kentucky=R. carolina Linn. var. villosa (Best) Rehder.

\*pygmea Raf. First Cat. Bot. Gard. Transylv. Univ. 12. 1824,

nom. Kentucky.

riparia Raf. Ann. Gén. Sci. Phys. 5:216. 1820, descr.; First Cat. Bot. Gard. Transylv. Univ. 12. 1824, nom.; Kentucky Gaz. l.c., nom., nota. Potomac River near Cumberland=?

var. amena Raf. Ann. Gén. Sci. Phys. 1.c., descr. serrulata Raf. op. cit. 218, descr.; Kentucky Gaz. I.c., nom. New York (Catskill Mountains). Sp. dub.; see Fernald, Rhodora 50:146. 1948.

var. rotundifolia Raf. 1.c., descr. setigera Michx. Eastern North America.

var. pubescens Raf. op. cit. 213, descr. Virginia and Carolina.

suaveolens Pursh. Eastern North America.

var. alba Raf. op. cit. 218, descr. Pennsylvania, New Jersey, Ohio.
glauca Raf. l.c., descr.

\*trifoliata Raf. Ann. Gén. Sci. Phys. 5:213. 1820, descr.; Kentucky Gaz. 1.c., nom. Kentucky=R. setigera Michx. \*viscida Raf. Kentucky Gazette 36(32):[3]. 1832, descr. Ex

descr.=R. virginiana Mill.

RUBUS Linn. \*ambiguus Raf. Herb. Raf. 68. 1833, nom. Alleghany Mountains.

\*\*angulatus Raf. Fl. Ludovic. 98. 1817, descr. (Ronce 2, Rob. Voy. Louis. 3:495. 1807). Louisiana.

\*\*egopodioides Raf. Sylva Tellur. 160. 1838, nom.; Aut. Bot. 175. 1840, nom.=R. aegopodioides Ser.=R. pubescens Raf. nitidus Raf. Fl. Ludovic. 98. 1817, descr. (Ronce 1, Rob. 1.c.). Louisiana=R. trivialis Michx.

\*parvifolius Raf. Herb. Raf. 68. 1833, nom. Alleghany Mountains.

pubescens Raf. Med. Repos. III. 2:333. 1811, nom. nov. R. saxatilis Michx. (R. saxatilis sensu Bigel.; R. triflorus Richards.; R. canadensis Torr.; R. aegopodioides Ser.; R. americanus Britton).

\*serotinus Raf. Herb. Raf. 54. 1833, nom. Northwestern United States (Lewis & Clark).

SANGUISORBA Linn.

\*nudicaulis Raf. Aut. Bot. 172. 1840, descr. (Sanguisorba officinalis Linn., "var."). Carpathian Mountains.
palustris Raf. Atl. Jour. 1:153. 1832, descr.; Herb. Raf. 68.

1833, nom.; Aut. Bot. 171. 1840, descr. Alleghany Mountains of Pennsylvania = S. canadensis Linn.

\*stipulata Raf. Herb. Raf. 47, descr., 49, nom., 1833; Aut. Bot. 171. 1840, descr. (S. officinalis Linn. var. auriculata All.). Oregon, Siberia ex Aut. Bot. (Sanguisorba sitchensis C. A. Mey., 1856; S. latifolia Coville, 1896); see Fernald, Rhodora 48:12. 1946.

SCHIZONOTUS Raf. New Fl. N. Am. 3:74. 1836 [1838], descr.; Sylva Tellur. 151. 1838, descr.; Good Book 46, 1840, nom. = Holodiscus Maxim. (1879), nom. conserv. (Schizo-

notus Raf., 1838).

discolor Raf. op. cit. 75, descr., 152, nom. (Spiraea discolor Pursh; S. ariaefolia Sm.; Lindl. Bot. Reg. 16: t. 1365. 1830). Northwestern United States=Holodiscus discolor (Pursh) Maxim. (Sericotheca discolor Rydb.). SELNORITION Raf. Sylva Tellur. 160. 1838, descr.; Aut. Bot.

175. 1840, nom. = Rubus Linn., subgen. Eubatus Focke.

canadensis Raf. ex Jacks\*. Ind. Kew. 2:866. 1895 (Rubus canadensis Linn.). Eastern North America.

cesius Raf. ex Jacks\*. 1.c., nom. (Rubus caesius Linn.). Europe.

obovalis Raf. ex Jacks\*. l.c., nom. (Rubus obovalis Michx.). Eastern North America=Rubus hispidus Linn.

saxatilis Raf. ex Jacks\*. l.c., nom. (Rubus saxatilis Linn.). Boreal and Arctic regions.

SERICOTHECA Raf. Sylva Tellur. 152. 1838, descr.=Holodiscus Maxim. (1879), nom. conserv. (Schizonotus Raf., 1838).

argentea Raf. ex Jacks\*. Ind. Kew. 2:885. 1895 (Spiraea argentea Linn. f. [sensu H.B.K. Nov. Gen. Sp. Pl. 6:235 (ed. folio 6:186) t. 562. 1823]). Colombia=Holodiscus argentea (Linn. f.) Kunth.

\*SESTINIA Raf. Specch. Sci. 1:155. 1814, nom.; Anal. Nat. Tabl. Univ. 173. 1815, nom. nov. Aremonia Neck .= Agri-

monia Linn. SORBUS Linn.

humifusa Raf. ex S. Wats. Bibl. Ind. N. Am. Bot. 290. 1878, nom. = seq.

pumila Raf. Med. Fl. 2:265. 1830, nom., nota; Herb. Raf. 54. 1833, nom. Oregon (Lewis & Clark) = Sorbus occidentalis (Wats.) Greene.

†riparia Raf. Herb. Raf. 56. 1833, nom.; New Fl. N. Am. 3:15. 1836 [1838], descr. Indiana, Ohio, Illinois, Missouri = Sorbus americana Marsh (vix S. decora Schneider!).

SPHENISTA Raf. Sylva Tellur. 90. 1838, descr.=Hirtella Linn.

peruviana Raf. op. cit. 91., nom. (Hirtella peruviana Pers.; H. racemosa Ruiz & Pavon; Cosmibuena Ruiz & Pavon). Peru=Hirtella cosmibuena Lam.

SPIRAEA Linn. (See Spirea Pallas) 16

 corymbosa Raf. Jour. Bot. (Desv.) 4:268. 1814, descr.: Loud.
 Gard. Mag. 8:246. 1832, nom., iter. Schlecht, Linnaea 8:
 Lit.-Ber. 70. 1833, iter. Britten, Jour. Bot. 38:226. 1900. Virginia.

\*SPIRAIA Raf. New Fl. N. Am. 3:62. 1836 [1838], nom. nov. provis. Spirea Pallas=Spiraea Linn.

SPIREA Pallas; Raf. Précis Découv. Somiol. 36. 1814, nom.; Anal. Nat. Tabl. Univ. 173. 1815, nom.; Med. Fl. 2:91. 1830, descr.; Herb. Raf. 55. 1833, nom. Act. Soc. Linn. Bordeaux 6:265. 1834, nom., nota.; Sylva Tellur. 150. 1838, descr.; New Fl. N. Am. 3:62. 1836 [1838], descr.=Spiraea Linn.

†amena Raf. Herb. Raf. 59. 1833, nom.; Sylva Tellur. 150. 1838, nom.; New Fl. N. Am. 3:65. 1836 [1838], descr. New Jersey to Kentucky. Spiraea latifolia (Ait.) Borkh. var. pauciflora Raf. New Fl. N. Am. l.c., descr. (S. salicifolia Linn. var. β Pallas, Fl. Ross. 1:36. t. 22. 1784). Siberia=Spiraea salicifolia Linn.

bracteata Raf. New Fl. N. Am. 3:67. 1836 [1838], descr. (S. laevigata Linn.?); Sylva Tellur. 151. 1838, nom. Siberia "and New Siberia" i.e. N. W. America.) = Spiraea laevigata (Linn.) Maxim. (S. altaiensis C. K. Schneider).

†ciliata Raf. Herb. Raf. 49, 58, nom. 1833; New Fl. N. Am. 3:66. 1836 [1838], descr. (Spiraea salicifolia sensu Ell.); Sylva Tellur. 150. 1838, nom. Indiana to Carolina=Spiraea alba Du Roi.

var. multiflora Raf. 1.c., descr. petiolata Raf. 1.c., descr.

corymbosa Raf. Précis Découv. Somiol. 36. 1814, descr.; Jour. Bot. (Desv.) 4:268. 1814, descr. (Spiraea); First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom.; Med. Fl. 2: 265. 1830, nom.; Herb. Raf. 59. 1833, nom.; Sylva Tellur. 151. 1838, nom.; New Fl. N. Am. 3:70. 1836 [1838], descr. Alleghany Mountains of Pennsylvania, Maryland and Virginia.

16 Rafinesque deliberately used the form Spirea, originally utilized by Pallas, and published thirty-one binomials in one form or another; see Spirea Pallas, where these are entered. Most of these appear in Index Kewensis 2:964-965. 1895 under Spiraea Linn., and in the present work they are not indicated as new binomials "Raf. ex Jacks\*." although strictly speaking they should be. The few marked with an asterisk under Spiraea Pallas do not appear in Index Kewensis under Spiraea. The one here listed under Spiraea Linn. was due to Desvaux's editing Rafinesque's text.

crenata Linn. var. sibirica Raf. New Fl. N. Am. 3:66. 1836 [1838], descr. (Spirea crenata "var." Pallas, Fl. Ross. 1:36. 26. f. 2. 1784, sub. Spirea alpina Pallas). Siberia= Spiraea crenata Linn.

\*cuneata Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824,

nom. Kentucky.

tcuneifolia Raf. Herb. Raf. 9. 1833, descr.; New Fl. N. Am. 3:67. 1836 [1838], descr.; Sylva Tellur. 151. 1838, nom. "Origon and New Albion" [Oregon and California] = S. menziesii Hook.

daurica Raf. New Fl. N. Am. 3:69. 1836 [1838], descr. (Spirea chamaedrifolia Linn. "var."; Pallas, Fl. Ross. 1:32. t. 15. 1784). Siberia=Spiraea media Schmidt. denticulata Raf. New Fl. N. Am. 3:71: 1836 [1838], descr. (Spirea crenata Pallas, Fl. Ross. 1:35. t. 19. 1784); Sylva Tellur. 151. 1838, nom. Siberia "and probably New Siberia" ie Northwestern America—Spiraea crenata Linn.

i.e. Northwestern America = Spiraea crenata Linn.
†ferruginea Raf. Herb. Raf. 59. 1833, nom.; New Fl. N. Am.
3:63. 1836 [1838], descr. (feruginea); Sylva Tellur. 151.
1838, nom. Wasioto and Appalachian Mountains and eastern Kentucky=Spiraea tomentosa Linn.

var. angustifolia Raf. New Fl. N. Am. l.c., descr. Pine

barrens of New Jersey.

flexuosa Raf. New Fl. N. Am. 3:64. 1836 [1838], descr.

(Spiraea salicifolia auct. Am.); Sylva Tellur. 150. 1838,

nom. Canada to Virginia = Spiraea alba Du Roi.

\*glauca Raf. New Fl. N. Am. 3:70. 1836 [1838], nom. nov. provis. S. corymbosa Raf. = Spiraea corymbosa Raf. Eastern

North America.

†glomerata Raf. Herb. Raf. 59. 1833, nom.; New Fl. N. Am. 3:63. 1836 [1838], descr. (S. tomentosa sensu Raf. Med. Fl. 2:91. t. 88. 1830); Sylva Tellur. 151. 1838, nom. Fl. 2:91. t. 88. Alleghany Mountains=Spiraea tomentosa Linn.

var. cinerea Raf. New Fl. N. Am. l.c., descr. New Jersey. major Raf. 1.c., nom.

†heterophyla Raf. Herb. Raf. 58. 1833, nom.; New Fl. N. Am. 3:65. 1836 [1838], descr.; Sylva Tellur. 150. 1838, nom. Alleghany Mountains and Alabama=S. latifolia (Ait.) Borkh.

hookeriana Raf. New Fl. N. Am. 3:73. 1836 [1838], nom. nov. provis. S. virgata Raf. var. hookeriana Raf. Northwestern

North America = S. hypericifolia Linn.

italica Raf. op. cit. 72. descr. (Spiraea hypericifolia folio non crenato Bocc. Mus. Pl. Rar. 137. t. 96. f. [1]. 1697; Spiraea hypericifolia sensu Sm. in Rees Cyclop.). Italy.

japonica Raf. op. cit. 71, descr. (Spiraea crenata Thunb., non Linn. f.). Japan=Spiraea thunbergii Siebold=S. canto-

niensis Lour.

laciniata Raf. I.c., nom. nov. provis., nota sub Spirea denticulata Raf. (Spirea crenata Pallas FI. Ross. 1:35. 1784, "var."). Siberia=? Spiraea hypericifolia Linn.
\*levigata Raf. Sylva Tellur. 151. 1838, nom. Siberia=Spi-

raea laevigata Linn. = Sibiraea laevigata (Linn.) Maxim.

†obovata Raf. Fl. Ludovic. 171, 1817, nom.; Am. Monthly Mag. Crit. Rev. 2:206. 1818, descr., DC. Prodr. 2:544. Mag. Crit. Rev. 2:200. 1818, aescr., DC. Frogr. 2:344. 1825, nom. in syn. sub Spiraea salicifolia Linn. var. latifolia DC.; Herb. Raf. 58. 1833, nom.; New Fl. N. Am. 3:66. 1836 [1838], descr. (Spiraea crenata sensu Torr.; S. hypericifolia Linn. "var." Beck; S. chamaedrifolia sensu Pursh); Sylva Tellur. 151. 1838, nom. New York (Mattawan and Kiskanom Mountains)=Spiraea latifolia (Ait.) Borkh.

var. sibirica Raf. New Fl. N. Am. 3:66. 1836 [1838],

nom., nota. (Spirea, s.n. Pallas Fl. Ross. 1: t. 26. f. 2. 1784). Siberia.

†ostryfolia Raf. Sylva Tellur. 151. 1838, nom.; New Fl. N. Am. 3:69. 1836 [1838], descr. (Spiraea betulifolia sensu Pursh, non Pallas). Alleghany Mountains of Virginia= Spiraea corymbosa Raf.

var. pumila Raf. New Fl. N. Am. 1.c., descr. Wasioto

(Cumberland) Mountains.

ovata Raf. Sylva Tellur. 150. 1838, nom.; New Fl. N. Am. 3:65. 1836 [1838], descr. Alleghany, Cumberland and Appalachian Mountains = S. latifolia (Ait.) Borkh.

tparvifolia Raf. Herb. Raf. 59. 1833, nom.; New Fl. N. Am. 3:63. 1836 [1838], descr.; Sylva Tellur. 151. 1838, nom. Canada, Lake Champlain, Saranac and Oquago Mountains (New York) = Spiraea tomentosa Linn.

pulverulenta Raf. New Fl. N. Am. 3:71. 1836 [1838], nom. nov. provis. Spiraea crenata Linn. Europe.

repens Raf. New Fl. N. Am. 3:70. 1836 [1838], descr. (Spiraea corymbosa sensu Torr., Beck, et Eaton); Sylva Tellur. 151. 1838, nom. Lake Champlain, Saranac and Oquago Mountains (New York)=S. corymbosa Raf. var. pubescens Raf. New Fl. N. Am. l.c., descr.

reticulata Raf. New Fl. N. Am. 3:72. 1836 [1838], nom. alt.

S. italica Raf. Italy.

†rosea Raf. Herb. Raf. 59. 1833, nom.; New Fl. N. Am. 2: 62. 1836 [1838], descr.; Sylva Tellur. 151. 1838, nom. Western Kentucky to Alabama=Spiraea tomentosa Linn., var. rosea (Raf.) Fernald, Rhodora 14:190. 1912.

nov. provis. Spiraea salicifolia Linn. var. sibirica Pallas, Fl. Ross. 1:36. t. 21. 1784. Siberia=Spiraea salicifolia

Linn.

tomentosa Linn. North America.

var. albiflora Raf. Med. Fl. 2:92. 1830, nom.; New Fl. N. Am. 3:62. 1836 [1838], nom.

elatior Raf. New Fl. N. Am. l.c., nom. ferruginea Raf. Med. Fl. 2:92. 1830, nom.

paniculata Raf. l.c., nom.

pumila Raf. 1.c., nom. ramosa Raf. New Fl. N. Am. 1.c., nom.

virgata Raf. Med. Fl. l.c., nom.; New Fl. N. Am. l.c., descr. Carolina and Appalachian Mountains. versifolia Raf. New Fl. N. Am. 3:68. 1836 [1838], descr.

Versifolia Rat. New Fl. N. Am. 3:08. 1830 [1838], aescr. (Spiraea channaedrifolia sensu Pallas, Fl. Ross. 1:32. t. 15. 1784); Sylva Tellur. 151. 1838, nom. Siberia and New Siberia, i.e. Northwest America =? Spiraea media Schmidt. virgata Raf. New Fl. N. Am. 3:72. 1836 [1838], descr. (Spiraea hypericifolia Linn. et var. plukenetiana DC.); Sylva Tellur. 151. 1838. nom. Roreal America and "New Siberia"

Tellur. 151. 1838, nom. Boreal America and "New Siberia, i.e. Northwestern North America=Spiraea hypericifolia

var. hookeriana Raf. New Fl. 1.c., descr. Northwestern North America=Spirea hookeriana Raf. op. cit. 73=S. hypericifolia Linn.

\*SPIRENIA Raf. New Fl. N. Am. 3:62. 1836 [1838], nom., sphalm.=Spiraria Ser. (1825) pro sect. Spiraea Linn.= piraea Linn.

#SPONDOLOBUS Raf. New Fl. N. Am. 3:26. 1836 [1838], nom., nota, subgen, Chrysobalanos Linn. (Type C. pruni-florus Raf.)=Chrysobalanus Linn. (Geobalanus Small,

STREPTILON Raf. Aut. Bot. 173. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48: 95. 1921, non. = Geum Linn. odoratum Raf. l.c., non. (Geum urbanum Linn.); Pennell,

l.c., nom. Europe.
\*STYLIPUS Raf. Herb. Raf. 60. 1833, nom.; Aut. Bot. 9.

1840, nom. = seq.

\*vernus Raf. Il.cc., nom. Ohio to Tennessee and Missouri = Geum vernum (Raf.) Torr. & Gray.

†STYLYPUS Raf. Ann. Gén. Sci. Phys. 7:387. 1820, descr.; Kentucky Gaz. 36(15):[3]. 1822, descr.; Med. Fl. 1:223. 1828, descr., iter. Man. Med. Bot. 223. 1841; Western Minerva 41. 1821, descr., iter. Fox, Sci. II. 12:212. 1900; Neogen. 3. 1825, descr.; Life of Travels 61. 1833, nom. = Geum Linn. Geum Linn.

vernus Raf. Ann. Gén. Sci. Phys., Med. Fl., Man. Med. Bot., Kentucky Gaz., Western Minerva, Neogen, et Science, Il.cc., descr.; First Cat. Bot. Gard. Transylv. Univ. 16. 1824, nom. Kentucky=Geum vernum (Raf.) Torr. & Gray.

\*STYPOSTYLIS Raf. Ann. Gén. Sci. Phys. 7:387. 1820, nom. alt. Stylypus Raf. = Geum Linn.

\*vernus Raf. l.c., nom. alt. Stylypus vernus Raf. Kentucky=
Geum vernum (Raf.) Torr. & Gray.

#THAMNILA Raf. Aut. Bot. 167. 1840, descr., subgen. Dasiphora Raf. (Type Dasiphora riparia Raf. = Potentilla fruticosa Linn.) = Dasyphora Raf. (1840) = Potentilla Linn.

†THECANISIA Raf. Act. Soc. Linn. Bordeaux 6:265. 1834, descr., iter. Merr. Proc. Am. Philos. Soc. 86:87. 1942, op. cit. 90, nom.; New Fl. N. Am. 2:38. 1836 [1837], descr. op. cit. 3:61. 1836 [1837], nom.; Sylva Tellur. 152. 1838, descr.=Filipendula Adans. (1763).

\*amplifoliata Raf. Act. Soc. Linn. Bordeaux 6:266. 1834, nom., iter. Merr. 1.c., North America = Spiraea sp.

\*angustata Raf. l.c., nom., iter. Merr. l.c. North America.
\*angustata Raf. l.c., nom., iter. Merr. l.c. North America.
angustifolia Raf. New Fl. N. Am. 2:39. 1836 [1837], descr. North Carolina and Georgia=Filipendula purpurea (Hill) B. L. Robins.

†THECANISIA (continued). †discolor Raf. Act. Soc. Linn. Bordeaux 6:265. 1834, nom. iter. Merr. 1.c., New Fl. N. Am. 1.c., descr.; op. cit. 3:75.

iter. Merr. i.c., New Fl. N. Am. I.c., aeser.; op. cit. 5:/3. 1836 [1838], nom., nota. Appalachian Mountains=Filipendula purpurea (Hill) B. L. Robinson. †lobata Raf. Act. Soc. Linn. Bordeaux l.c., nom., iter. Merr. l.c., nom.; New Fl. N. Am. 2:38. 1836 [1837], descr. Carolina to Alabama=Filipendula purpurea (Hill) B. L. Robins. palmata Raf. ex Jacks\*. Ind. Kew. 2:1062. 1895 (Spiraea Palmata Palles) Siberia

palmata Pallas). Siberia.

purpurea Raf. New Fl. N. Am. 2:38. 1836 [1837] (sphalm. "ponpurea"), descr.; op. cit. 4:107. 1836 [1838], nom. Western Kentucky and Tennessee=Filipendula rubra (Hill) B. L. Robins.

ulmaria Raf. ex Jacks\*. Ind. Kew. 2:1062. 1895 (Spiraea ulmaria Linn.). Europe, Asia=Filipendula ulmaria (Linn.)

\*TOBIUM Raf. Specch. Sci. 1:155. 1814, nom.; Anal. Nat. Tabl. Univ. 173. 1815, nom., sphalm. "Tobinum" (Poterium sp.)=Poterium Linn.
TORMENTILLA Linn.=Potentilla Linn.

fragaroides Raf. Aut. Bot. 169. 1840, descr. (Fragaria sterilis Linn.; Potentilla fragariastrum Ehrh.; Comarum fragarioides Roth). Europe=Potentilla sterilis (Linn.) Garcke. parviflora Raf. op. cit. 168, descr. Europe. #XAMEDRYON Raf. Sylva Tellur. 151. 1838, descr., subgen.

Spiraea Linn. (Type, Spiraea ulmaria Linn.)=Filipendula

Adans. (1763).

†XEROMALON Raf. Herb. Raf. 48. 1833, nom.; New Fl. N. Am. 3:11. 1836 [1838], descr.; Good Book 45. 1840, nom. Ex descr. = Crataegus Linn.

obovatum Raf. Herb. Raf. 1.c., nom.; New F1. op. cit. 12, descr. Appalachian Mountains of Maryland. Prob.=Crataegus

uniflora Moench.

ZAMZELA Raf. Sylva Tellur. 90. 1838, descr. = Hirtella Linn. racemosa Raf. l.c., nom. (Hirtella triandra Sw.). West Indies. rugosa Raf. l.c., nom. (Hirtella rugosa Thuill.). West Indies.

#### LEGUMINOSAE

ACACIA Willd.

virgata Raf. Fl. Ludovic. 136. 1817, descr. sub Mimosa glandu-losa Willd. (Mimosa virgata ("virgatia") sensu Bartram, Trav. 421. 1791, non Linn.). Florida=Neptunia lutea (Leavenw.) Benth.

\*ACAKIA Raf. New Fl. N. Am. 1:41. 1836, nom., nota (Akakia Adans.; Acacia Willd.); Fl. Tellur. 1:87. 1836 [1837], nom. (Acacia Willd.); Sylva Tellur. 118. 1838, nom.; Good Book

44. 1840, nom.=Acacia Willd. (1805).

\*cooleyi Raf. New Fl. N. Am. l.c., descr. (Acacia cooleyi Eaton). South Central United States=Desmanthus cooleyi (Eaton) Rydb. (D. jamesii Torr. & Gray.).

\*farnesiana Raf. l.c., nom. (Acacia farnesiana Willd.). Pantaria

\*houstonia Raf. Sylva Tellur. 121. 1838, nom.=Acacia houstoni Willd.=Calliandra houstoniana (Mill.) Standl. Mexico. \*julibrisin Raf. New Fl. N. Am. 1.c., descr. (Acacia julibrissin Willd.). India=Albizzia julibrissin Durazz.

\*lutea Raf. 1.c., descr. (Acacia lutea Leavenw.). Southeastern United States=Neptunia lutea (Leavenw.) Benth.

ACMISPON Raf. Atl. Jour. 1:144. 1832, descr.; New Fl. N. Am. 1:53. 1836, descr; Good Book 44. 1840, nom.=Hosackia Dougl. (1829).

multiflorum Raf. New Fl. N. Am. 1.c., descr. Missouri.
sericeum Raf. Atl. Jour. 1:145. 1832, nom. (Lotus sericeus
Pursh; Trigonella americana Nutt.); New Fl. N. Am.
1:53. 1836, descr. Carolina to Missouri Hosackia americana (Nutt.) Piper (H. sericea Trelease, non Benth.; H.

purshiana Benth.; Acmispon americanus Rydb.).

ADIPERA Raf. Sylva Tellur. 129. 1838, descr. = Cassia Linn.

herberti Raf. 1.c., descr. (Cassia herbertiana Lindl. Bot. Reg. 17: t. 1422. 1831). West Indies=Cassia laevigata Willd.

AGASTIANIS Raf. New Fl. N. Am. 3:85. 1836 [1838], descr.; Good Book 45. 1840, nom.=Sophora Linn.

secundiflora Raf. op. cit. 86, descr. (Broussonetia secundiflora Ortega; Virgilia secundiflora Cav. Ic. 5:1. t. 401. 1799; Sophora secundiflora Lagasca). Texas, Mexico=Sophora secundiflora (Ortega) Lagasca

secundiflora (Ortega) Lagasca.
\*\*AKAKIA Adans. Fam. 2:512. 1763, in indice; New Fl. N. Am.
1:41. 1836, nom.; Sylva Tellur. 119. 1838, nom., sub

Seriandra Raf.=Acacia Willd.

#ALATIPES Raf. New Fl. N. Am. 2:57. 1836 [1837], descr., subgen. provis. Crotalaria Linn. (Type Crotalaria alatipes Raf.); Good Book 45, 1840, nom. = Crotalaria Linn.

AMORPHA Linn.

\*colorata Raf. Aut. Bot. 81. 1840, descr. (A. caroliniana Croom?). Appalachian Mountains (=? A. nitens Boynton,

\*discolor Raf. op. cit. 79, descr. Alabama=A. fruticosa Linn. \*flexuosa Raf. op. cit. 80, descr. Unaka Mountains, North Carolina=A. fruticosa Linn.

\*glauca Raf. 1.c., descr. Missouri=A. fruticosa Linn.

lutea Raf. Fl. Ludovic. 105. 1817, descr. (Amorpha 1, Rob. Voy. Louis. 3:504. 1807). Louisiana.

\*macrophyla Raf. Aut. Bot. 79. 1840, descr. Florida=?

A. fruticosa Linn.

\*media Raf. Herb. Raf. 79. 1833, nom. Florida or Alabama. †punctata Raf. Herb. Raf. 38, 57. 1833, nom.; New Fl. N. Am. 3:14. 1836 [1838], descr. Missouri=Amorpha nana Nutt. fide Raf. Aut. Bot. 81. 1840. \*retusa Raf. Aut. Bot. 80. 1840, descr. Appalachian Moun-

tains=A. glabra Poir.

tomentosa Raf. Fl. Ludovic. 105. 1817, nom., nota. (Amorpha 2, Rob. Voy. Louis. 3:505. 1807). Louisiana. †tomentosa Raf. Aut. Bot. 81. 1840, descr. Indiana and

Kentucky=? A. canescens Pursh. \*verrucosa Raf. op. cit. 80, descr. (Amorpha fruticosa Linn.?).
Alabama=A. fruticosa Linn.

\*AMORPHUS Raf. Fl. Tellur. 1:29. 1836 [1837], nom.=praec. AMPHICARPA Ell. (1818), nom. conserv. (Falcata J. F. Gmel., 1791; Savia Raf., 1808).

ciliata Raf. New Fl. N. Am. 1:82. 1836, descr. Appalachian Mountains of Virginia and Carolina=A, bracteata (Linn.) Fernald.

cuspidata Raf. op. cit. 83, descr. Cumberland Mountains of eastern Kentucky=A. bracteata (Linn.) Fernald.

deltifolia Raf. l.c., descr. Canada to New Jersey and Missouri=A. bracteata (Linn.) Fernald.

var. incarnata Raf. 1.c., nom.

procera Raf. l.c., descr.
ellioti Raf. l.c., descr. (Amphicarpa monoica Ell., Glycine monoica Linn.?). Virginia and Carolina=A. bracteata (Linn.) Fernald, Rhodora 35:276. 1933 (Glycine bracteata Linn.; Falcata comosa auctt. Am., non O. Kuntze, non Glycine comosa Linn.; Glycine monoica Linn.; Amphicarpa monoica Ell.).

heterophyla Raf. op. cit. 82, descr. Alleghany Mountains of Pennsylvania = A. bracteata (Linn.) Fernald.

villosa Raf. 1.c., descr. Alabama, Mississippi=A. bracteata (Linn.) Fernald.

ANDACA Raf. Fl. Tellur. 3:82. 1836 [1837], descr.=Lotus

arabica Raf. Fl. Tellur. 1.c., descr. (Lotus arabicus Linn.; Soland. ex Russell, Nat. Hist. Alep. ed. 2, 2:261. t. 14. 1794; Jacq. Hort. Vind. 2: t. 155. 1770-76). Arabia, Syria. ANDRASTIS Raf. ex Benth. Ann. Wien. Mus. 2:86. 1840

[1838], nom., nota (Virgilia lutea Michx. f.)=Cladrastis Raf.

ANISANTHERA Raf. Fl. Tellur. 2:60. 1836 [1837], descr. (non Anisanthera Raf. op. cit. 3:80. 1836 [1837]) = Crotalaria Linn.

hastata Raf. op. cit. 61, descr. (Crotalaria verrucosa Linn., var.) Mauritius, Bourbon=Crotalaria verrucosa Linn.

versicolor Raf. op. cit. 60, descr. (Crotalaria verrucosa sensu Willd.; Andr. Bot. Repos. 5: t. 308. 1803; Lindl. Bot. Reg. 14: t. 1137, 1828; Hook, Bot. Mag. 57: t. 3034, 1830; Crotalaria caerulea Jacq. Ic. Rar. 1: t. 144, 1781-86). Pantropic=Crotalaria verrucosa Linn. \*APLENDA Raf. New Fl. N. Am. 3:86. 1836 [1838], nom.

sub Agastianis secundiflora Raf.=Sophora Linn.

ASACARA Raf. Neogen. 2. 1825, descr.; Sylva Tellur. 121. 1838, descr.; Aut. Bot. 82. 1840, nom. sub Monosemeion Raf.=Gleditsia Linn.

aquatica Raf. 11.cc. nom. (Gleditsia monosperma Walt. [Gleditsia aquatica Marsh.] Southeastern United States= G. aquatica Marsh.

ASTRAGALUS Linn.

\*mandanensis Raf. 1.c., nom. Upper Missouri (Mandan country)=Dakota.

\*nuttali Raf. Herb. Raf. 39. 1833, nom. Upper Missouri (Mandan country) = Dakota.

\*plattensis Raf. l.c., nom. Upper Missouri (Mandan country)=Dakota.

\*siculus Raf. Car. Nuov. Gen. Sp. Sicil. 72. 1810, descr.; Stat. Gen. Sicil. 27. 1810, nom.; Chloris Aetn. 9, 14. 1815,

nom. Sicily.

AULONIX Raf. Sylva Tellur. 25. 1838, descr.=Cytisus Linn.,

sect. Tubocytisus DC.
biflorus Raf. l.c., descr. (Cytisus biflorus L'Hérit.; Ker-Gawl.

Bot. Reg. 4: t. 308. 1818). Hungary.

AVORNELA Raf. Sylva Tellur. 24. 1838, descr. (Chamaespartium Adans.; Genistella Rupp.) = Cytisus Linn.

canariensis Raf. ex Jacks\*. Ind. Kew. 1:255. 1893 (Genista

canariensis Linn.). Canary Islands=Cytisus canariensis (Linn.) Steud.

candicans Raf. ex Jacks\*. 1.c. (Genista candicans Linn.)

Southern Europe—Cytisus candicans (Linn.) Lam. linifolia Raf. ex Jacks\* I.c. (Genista linifolia Linn.). Southern Europe—Cytisus linifolius (Linn.) Lam. \*AVORNELLA Raf. ex Torre & Harms, Gen. Siphon. 226. 1901,

\*AXIRON Raf. Sylva Tellur. 25. 1838, nom. sub Diaxulon

Raf.=Cytisus Linn.

BAPTISIA Vent.; Raf. New Fl. N. Am. 2:46. 1836 [1837],

descr. albiflora Raf. op. cit. 47, descr. (Baptisia alba R. Br.). Carolina to Alabama and Louisiana.

var. glauca Raf. l.c., nom. latifolia Raf. 1.c., nom. mucronata Raf. l.c., nom.

retusa Raf. 1.c., nom. \*cerulea Raf. Western Rev. Miscel. Mag. 2:92. 1819, nom. (Podalyria coerulea Michx.; Baptisia †coerulea Eaton, Man. ed. 4, 228. 1824). Kentucky. retusa Raf. New Fl. N. Am. 2:47. 1836 [1837], descr. West-

ern Virginia and eastern Kentucky.

tinctoria R. Br. Canada to Louisiana. var. parvifolia Raf. l.c., nom.

procumbens Raf. l.c., nom.

thamnoides Raf. 1.c., nom.
versicolor Raf. New Fl. N. Am. 4:107. 1836 [1838], nom.;
Jacks. Ind. Kew. 1:272. 1893 est B. versicolor Lodd. Bot.
Cab. 12: t. 1144. 1826. Eastern North America.

BAUHINIA Linn.

\*angulata Raf. Sylva Tellur. 122. 1838, nom. sub Cansenia Raf. Hab.?

\*monandra Raf. 1.c., nom. sub Monoteles Raf. Hab.?

\*utimuta Raf. 1.c., nom. sub Mandarus Raf.=B. outimouta Aubl. Guiana.

BESSIA Raf. Sylva Tellur. 13. 1838, descr.=Intsia Thouars (1806)

sanguinolenta Raf. 1.c., descr. (Bessi [i.e. Metrosideros amboinensis] Rumph. Herb. Amb. 3:21. t. 10. 1743). Moluccas = Intsia bijuga (Colebr.) O. Kuntze; see Merrill, Interpret. Rumph. Herb. Amb. 255, 1917.

BINARIA Raf. Sylva Tellur. 122. 1838, descr.=Schnella Raddi (1820)=Lacara Spreng. (1822)=Caulotretus L. C. Rich.,

1827 = Bauhinia Linn.

cumanensis Raf. l.c., descr. (Bauhinia cumanensis H.B.K.; Lindl. Bot. Reg. 14: t. 1133. 1828). Venezuela. BRADBURYA Raf. Fl. Ludovic. 104. 1817, descr.; Am. Monthly Mag. Crit. Rev. 4:188. 1819, nom. = Centrosema Benth. (1838), nom. conserv. (Bradburya Raf., 1817; Vexillaria

Hoffmgg., 1824).

erecta Raf. op. cit. 105, descr. (Glycine 2 Rob. Voy. Louis. 3:504. 1807); Herb. Raf. 55. 1833, nom. Louisiana.

\*reticulata Raf. Herb. 67. 1833, nom. Cumberland Mountains=Centrosema virginianum (Linn.) Benth.

scandens Raf. Fl. Ludovic. 10, nom., 104, descr., 1817 (Glycine 1 Rob. op. cit. 503); Herb. Raf. 56. 1833, nom. Louisiana Centrosema virginianum (Linn.) Benth.

CAJANUM Raf. Sylva Tellur. 25. 1838, descr. (Cajan Adans.) = Cajanus DC. (1813), nom. conserv. (Cajan Adans., 1763). thora Raf. 1.c., nom. (Cytisus pseudocajan Jacq.). Pantropic=

Cajanus cajan (Linn.) Millsp. (Cajanus indicus Spreng.). CANSENIA Raf. Sylva Tellur. 122. 1838, descr. = Bauhinia Linn.

\*angulata Raf. l.c., nom. (Bauhinia angulata Raf. l.c.). Hab.? angulosa Raf. ex Jacks\*. Ind. Kew. 1:413. 1893 sphalm.=
Bauhinia angulata Raf. Hab.?

tomentosa Raf. Sylva Tellur. 1.c., nom. (Bauhinia tomentosa

Linn.). Tropical Asia.

CASSIA Linn.

ciliata Raf. Fl. Ludovic. 100. 1817, descr. (Anonyme Rob. Voy. Louis. 3:499. 1807). Louisiana = C. occidentalis Linn. (Ditremexa occidentalis Britton & Rose).

\*thora Raf. Sylva Tellur. 128. 1838, nom., sphalm.=Cassia tora Linn. Tropical America.

\*toroides Raf. Med. Fl. 1:96. 1828, descr., iter. Man. Med. Bot. 96. 1841; Sylva Tellur. 128. 1838, nom. sub Diallobus falcatus Raf. Georgia to Kentucky=C. tora Linn. \*torula Raf. Sylva Tellur. 129. 1838, nom. sub Tagera Raf.=

Cassia tora Linn.

CASSIANA Raf. Am. Monthly Mag. Crit. Rev. 2:266. 1818. nom. nov. Cassia Linn.

\*CLADASTRIS Wood, Class-Book 301. 1861, sphalm.=seq. \*tinctoria Wood l.c., sphalm.=Cladrastis tinctoria Raf.

†CLADRASTIS Raf. First Cat. Bot. Gard. Transylv. Univ. 12. 1824, nom.; Cincinnati Lit. Gaz. 1:60. 1824, descr.; Neogen. 1. 1825, descr.; Loud. Gard. Mag. 8:246. 1832, nom., nota, iter. Schlecht. Linnaea 8: Lit.-Ber. 70. 1833, iter. Britten, Jour. Bot. 38:226. 1900; Act. Soc. Linn. Bordeaux 6:264. 1834, nom. (Virgilia auct. Am.); New Fl. N. Am. 6:264. 1834, nom. (Virgilia auct. Am.); New Fl. N. Am. 1:26. 1836, nom.; op. cit. 2:53. 1836 [1837], nom.; op. cit. 3:83. 1836 [1838], descr.; Good Book 45. 1840, nom. (Platyosprion Maxim., 1876). albiflora Raf. New Fl. N. Am. 3:83. 1836 [1838], nom. alt. Cladrastis tinctoria Raf.; Aut. Bot. 78. 1840, nom. (C. tinctoria Raf.) Kentucky—C. \*Jutea (Michy f.)

(C. tinctoria Raf.). Kentucky=C. \*Iutea (Michx. f.) K. Koch, Dendr. 1:6. 1869.

†fragrans Raf. First. Cat. Bot. Gard. Transylv. Univ. 12. 1824, nom.; Cincinnati Lit. Gaz. 1:60. 1824, descr. Kentucky = praec.

kentuckensis Raf. ex Jacks\*. Ind. Kew. 1:552. 1893 [Sophora kentukea Dum. Cours. Bot. Cult. ed. 2, 6:56, 18111=

lutea Raf. ex Jacks\*. 1.c. (Virgilia lutea Michx. f.) = C. \*lutea (Michx.) K. Koch, Dendr. 1:6. 1869. secundiflora Raf. ex Jacks\*. 1.c. (Virgilia secundiflora Cav.).

Mexico=Sophora secundiflora (Ortega) Lag.

tinctoria Raf. Neogen. 1. 1825, nom. (Virgilia lutea Michx. f.); Herb. Raf. 48. 1833, nom. (Virgilia lutea Michx. f.); Act. Soc. Linn. Bordeaux 6:265. 1834, nom., nota; New Fl. N. Am. 3:83. 1836 [1838], descr.; Aut. Bot. 78. 1840, nom., nota. Kentucky to Alabama=C. lutea (Michx. f.) K. Koch.

CLITORIA Linn.

parviflora Raf. Atl. Jour. 1:147. 1832, descr. Florida= C. ternatea Linn.

CORONILLA Linn.

\*rosea Raf. Aut. Bot. 79. 1840, descr. Persia.

CRAFORDIA Raf. Specch. Sci. 1:156. 1814, descr. = Tephrosia Pers. (1807).

bracteata Raf. op. cit. 157, descr. Pennsylvania = ? T. spicata (Walt.) Torr. & Gray.

CROTALARIA Linn.

alatipes Raf. New Fl. N. Am. 2:57. 1836 [1837], descr.

Southern Florida=? C. spectabilis Roth.
asarifolia Raf. l.c., descr. Texas=? C. angulata Mill.
cuneifolia Raf. op. cit. 55, descr. Carolina to Florida=
C. purshii DC.

\*flexuosa Eaton,17 Man. Bot. N. Am. ed. 7, 264. 1836, descr., Raf. op. cit. 56, descr. Carolina = Crataegus flexuosa (Poir.) DC.=Crataegus uniflora Moench (Rosaceae).

linearis Raf. op. cit. 54, descr. (Crotalaria sagittalis Linn., var. linearis Michx.). Carolina to Louisiana = C. purshii DC. longipes Raf. 1.c., descr. (Crotalaria sagittalis sensu DC.?).

Alabama=? C. purshii DC.

lunulata Raf. op. cit. 55, descr. (Crotalaria sagittalis Linn., var. oblonga Michx.). Carolina to Florida=C. sagittalis Linn.

lupulina "Raf. Specch. 1:159"; S. Wats. Bibl. Ind. N. Am. Bot. 1:210. 1878, recte *C. lupulina* H.B.K. Nov. Gen. Sp. Pl. 6:402. *t*. 590. 1824; DC. Prodr. 2:133. 1825. Mexico= C. pumila Ortega.

ovalis Pursh. Carolina, Alabama, Florida=C. angulata Mill. var. obovata Raf. op. cit. 56, descr. parvifolia Raf. 1.c., nom.

17 For an explanation of this strange error see Merrill, E. D. & Reeder, J. R., Bartonia 24:56. 1947 [1948].

CROTALARIA (continued).

pilosa Raf. op. cit. 54, descr. (Crotalaria parviflora Roth. non Thunb.). Pennsylvania and New Jersey to Carolina and Missouri=C. sagittalis Linn.

var. flexuosa Raf. op. cit. 55, descr. Missouri. simplex Raf. 1.c., descr.

pumila Raf. op. cit. 56, descr. Georgia, Florida=C. angulata Mill.

scariosa Raf. 1.c., descr. Arkansas, Texas=C. sagittalis Linn. var. fruticosa (Mill.) Fawc. & Rendle.

CUPARILLA Raf. Sylva Tellur. 120. 1838, descr.=Acacia Willd. (1805).

myrtifolia Raf. 1.c., nom. (Acacia myrtifolia Willd.). Australia.

sophorina Raf. 1.c., nom. (Acacia sophorae R. Br.). Australia.

CYLIPOGON Raf. Jour. Phys. Chim. Hist. Nat. 89:97. 1819, descr.; Isis von Oken 1820. 1: Lit. Anz. 237. 1820, descr.=Dalea Juss. (1789), nom. conserv., non Dalea Mill. et al.

(Parosela Cav., 1802).
capitatum Raf. ll.cc., descr.; Herb. Raf. 38. 1833, nom.
(Dalea aurea Nutt.). Upper Missouri=Dalea aurea Nutt.

(Parosela aurea Britton).

virgatum Raf. Il.cc., descr.; Herb. Raf. 38. 1833, nom. (Dalea laxiflora Pursh). Upper Missouri (Dakota) = Dalea enneandra Nutt. (Parosela enneandra Britton).

DACTIPHYLLON Raf. Am. Monthly Mag. Crit. Rev. 2:268.

1818, nom. nov. Lupinaster Moench=seq.

DACTIPHYLLUM Raf. Jour. Phys. Chim. Hist. Nat. 89:261. 1819, nom. nov. Lupinaster Moench.; Loud. Gard. Mag. 8:246. 1832, nom. (Lupinaster Moench.), iter. Schlecht. Linnaea 8: Lit.-Ber. 71. 1833, iter. Britten, Jour. Bot. 38: 227. 1900=Trifolium Linn.

DAMAPANA Adans. (1763) = Smithia Ait. (1789), nom.

conserv. (Damapana Adans., 1763).
manneli Raf. Sylva Tellur. 70. 1838, descr. (Tsjovannamanneli Rheede, Hort. Malabar. 9:71. t. 38. 1689). India Smithia sensitiva Ait.

DARLINGTONIA DC. (1825) = Desmanthus Willd. (1805), nom. conserv. (Acuan Medic., 1786).

brevifolia Raf. New Fl. N. Am. 1:42. 1836, descr. Louisiana, Texas = Desmanthus brachylobus Benth. = Desmanthus illinoensis (Mich.) MacMill.

virgata Raf. op. cit. 43, descr. (Acacia glandulosa sensu Raf. Fl. Ludovic. 136, 1817, non Willd.; Mimosa virgata (virgatia) Bartr. Trav. 421, 1791, non Linn). Southeastern Louisiana = Neptunia lutea (Leavenw.) Benth.

DARWINIA Raf. Fl. Ludovic. 106. 1817, descr.; Am. Monthly Mag. Crit. Rev. 4:188. 1819, nom.; Fl. Tellur. 1:16. 1836 [1837], nom., non Rudge (1813) = Sesbania Scop. (1777),

nom. conserv. (Sesban Adans., 1763; Agati Adans., 1763). exaltata Raf. l.c., descr. (Indigotier de la Louisiane Rob. Voy. Louis. 3:505. 1807). Louisiana=Sesbania macrocarpa

Muhl.

DASIOGYNA Raf. Atl. Jour. 1:145. 1832, descr.=Neltuma Raf. (1838)=Prosopis Linn.

glandulosa Raf. l.c., nom. (Prosopis [glandulosa] Torr. Ann. Lyc. Nat. Hist. N. Y. 2:192. 1827). Canadian River (Neltuma glandulosa Britton & Rose.).

DELONIX Raf. Fl. Tellur. 2:92. 1836 [1837], descr.

regia Raf. 1.c., descr. (Poinciana regia Boj.; Hook. Bot. Mag. 56: t. 2884. 1829). Madagascar.

DENDREMA Raf. Sylva Tellur. 14. 1838, nom. nov. provis. Bessia Raf. = Intsia Thouars (1806).

DESMODIUM Desf. (1813), nom. conserv. (Meibomia Adans., 1763; Pleurolobus J. St. Hil., 1812).

leucanthum Raf. New Fl. N. Am. 2:19. 1836 [1837], nom. sub Tropitoma Raf. Kentucky=D. marilandicum (Linn.)

DIALANTHERA Raf. Sylva Tellur. 127. 1838, descr.=Chamaecrista Moench (1794)=Cassia Linn.

glandulosa Raf. 1.c., nom. (Cassia glandulosa Linn.). Tropical America. (Chamaecrista glandulosa Greene).

DIALLOBUS Raf. Sylva Tellur. 128. 1838, descr. = Cassia

bicapsularis Raf. ex Jacks\*. Ind. Kew. 1:741. 1893=Cassia bicapsularis Linn. Tropical America. falcatus Raf. Sylva Tellur. 128. 1838, descr. (Cassia toroides Raf.; C. thora Raf.). Carolina, Kentucky=Cassia tora Linn. (Emelista tora Britton & Rose, 1930).

subuniflorus Raf. ex Jacks\*. Ind. Kew. 1:741. 1893, nom., sphalm.=D. uniflorus Raf.

\*sunsub Raf. Sylva Tellur. 1.c., nom. (Cassia sunsub Forsk.). Arabia.

thora Raf. ex Jacks\*. Ind. Kew. 1:741. 1893 (Cassia thora Raf.). Pantropic=C. tora Linn.

uniflorus Raf. Sylva Tellur. 128. 1838, descr. (Cassia bicapsularis sensu Mill.). West Indies, Madeira=Cassia tora Linn. (Emelista tora Britton & Rose, 1930).

DIALLOSPERMA Raf. Sylva Tellur. 69. 1838, descr. = Aspalathus Linn.

spinosa Raf. 1.c., nom. (Aspalathus spinosa Linn.). South Africa.

DIAXULON Raf. Sylva Tellur. 24. 1838, descr. = Cytisus Linn., sect. Tubocytisus DC.

argenteum Raf. op. cit. 25, nom. (Cytisus argenteus Linn.). Mediterranean region=Argyrolobium linnaeanum Walp. prolifer Raf. l.c., nom. (Cytisus proliferus Linn. f.). Teneriffe.

DIMENOPS Raf. Atl. Jour. 1:144. 1832, descr. = Krameria Loefl. (1758).

lanceolata Raf. 1.c., nom. (Krameria lanceolata Torr.). Arkan-

\*DIPLONIX Raf. Fl. Ludovic. 101. 1817, nom. sub Diplonyx
Raf.; New Fl. N. Am. 3:95. 1836 [1838], nom. = seq.

\*elegans Raf. 1.c., descr., sub Diplonyx Raf. = seq.

\*elegans Raf. 1.c., descr., sub Diplonyx Raf. = seq.

†DIPLONYX Raf. Fl. Ludovic. 10, nom., 101, descr. 1817 =
Wisteria Nutt. (1818), nom. conserv. (Krauhnia Raf., 1808;
Diplonyx Raf., 1817; Thyrsanthus Ell., 1817).

elegans Raf. op. cit. 10, nom. op. cit. 101. descr. ut Diplonix
(Cytise vulg. liane blanche Rob. Voy. Louis. 3:500. 1807);
Am. Monthly Mag. Crit. Rev. 4:188. 1819, nom.; Herb.
Raf. 56. 1833, nom. Louisiana = Wisteria frutescens (Linn.) Poir

DIPLOTAX Raf. Sylva Tellur. 129. 1838, descr.=Cassia Linn. arborescens Raf. I.c., nom. (Cassia arborescens Vahl). India=

Cassia glauca Lam.=C. surattensis Burm. f.

DISTEREPTA Raf. Sylva Tellur. 126. 1838, descr.=Chamaecrista Moench (1794).=Cassia Linn.

pilosa Raf. 1.c., nom. (Cassia pilosa Linn.). Tropical America. (Chamaecrista pilosa Greene)

DITREMEXA Raf. Sylva Tellur. 127. 1838, descr.=Cassia Linn.

caroliniana Raf. 1.c., nom. (Cassia occidentalis Linn.). North America.

fetida Raf. 1.c., nom. (Cassia occidentalis Linn.). North America.

ligustrina Raf. ex Jacks\*. Ind. Kew. 1:783. 1893; Britton & Rose, Sci. Surv. Porto Rico, Virgin Islds. 5:372. 1924= Cassia ligustrina Linn. Tropical America. DOLICHOS Linn.

lacteus Raf. Fl. Ludovic. 10, nom., 103, descr., 1817 (Josephine Rob. Voy. Louis. 3:267, 502, 1807); Med. Fl. 2:217. 1830, nom. Louisiana.

tomentosus Raf. 1.c., descr. (Dolic tomenteux Rob. op. cit. 502). Louisiana.

DREPAPHYLA Raf. Sylva Tellur. 120. 1838, descr.=Acacia Willd. (1805).

lanigera Raf. 1.c., nom. (Acacia lanigera Cunningh.; Hook. Bot. Mag. 56: t. 2922. 1829). Australia.

multinervia Raf. 1.c., nom. (Acacia multinervia DC.). Australia.

DREPILIA Raf. New Fl. N. Am. 2:52. 1836 [1837], descr.= Thermopsis R. Br. (1811).

rhombifolia Raf. op. cit. 53, descr. (Cytisus rhombifolius Pursh; Thermia rhombifolia Nutt.; Thermopsis rhombifolia Richards.; Hook, Fl. Am. Bor. 1:128. t. 47. 1830; T. ore-gonensis DC.). "Missouri and Origon" = Thermopsis rhombifolia (Pursh) Richards.

EAPLOSIA Raf. New Fl. N. Am. 2:51. 1836 [1837], descr.; Good Book 45. 1840, nom. = Baptisia Vent. (1808). longifolia Raf. op. cit. 52, descr. Alabama. ovata Raf. l.c., descr. (Baptisia simplicifolia sensu Torr.).

Florida=Baptisia simplicifolia Croom. var. rhomboidea Raf. 1.c., nom.

EBURNAX Raf. New Fl. N. Am. 1:42. 1836, descr. sub Mimosa

pudica Linn.=Mimosa Linn.
pudica Raf. ex Jacks\*. Ind. Kew. 1:808. 1893 (Mimosa pudica Linn.). Florida, Louisiana.

spinalba Raf. Sylva Tellur. 119. 1838, nom. sub Panthocarpa chionacantha Raf. (Mimosa eburnea Linn. f.). Asia Minor to India=Acacia eburnea (Linn. f.). Willd.

ELAYUNA Raf. Sylva Tellur. 145. 1838, descr. = Bauhinia Linn. biloba Raf. I.c., descr. (Bauhinia tamarindacea Delile). Central Africa.

#ELEUCIA Raf. Fl. N. Am. 2:47. 1836 [1837], nom. nov. provis., subgen. Baptisia Vent., sub B. albiflora Raf.=

Baptisia Vent. (1808).

EMELISTA Raf. Sylva Tellur. 127. 1838, descr. = Cassia Linn. obtusifolia Raf. 1.c., nom. (Cassia obtusifolia Linn.). Tropical America = Cassia tora Linn.

ENTADA Adans. (1763), nom. conserv. (Gigalobium Boem.,

cirrhosa Raf. Sylva Tellur. 119. 1838, nom. (Mimosa entada Linn.). India, Ceylon=Entada phaseoloides (Linn.). Merr. (E. scandens Benth.).

ERVUM Linn.

aristatum Raf. Précis Découv. Somiol. 38. 1814, descr.; Jour. Bot. (Desv.) 4:270. 1814, descr.; Chloris Aetn. 5. 1815, nom. Sicily.

ESCLERONA Raf. Sylva Tellur. 120. 1838, descr. = Xylia Benth.

(1842).

montana Raf. 1.c., descr. (Mimosa xylocarpa Roxb.; Acacia xylocarpa Willd.). India = Xylia xylocarpa (Roxb.) Taub. (X. dolabriformis Benth.).

EUTELINE Raf. Sylva Tellur. 24. 1838, descr. = Genista Linn., sect. Corothamnus (Koch) Nyman.

decumbens Raf. ex Jacks\*. Ind. Kew. 1:936. 1893 (Genista decumbens Willd.). Europe=Cytisus decumbens (Willd.) Spach.

germanica Raf. ex Jacks\*. 1.c. (Genista germanica Linn.).

Europe.

sagittalis Raf. ex Jacks\*. 1.c. (Genista sagittalis Linn.). Europe.

FAKELOBA Raf. Sylva Tellur. 69. 1838, descr. = Anthyllis

cretica Raf. 1.c., descr. (Aspalathus cretica Linn.). Mediterranean region=Anthyllis hermanniae Linn.

**FLUNDULA** Raf. Fl. Tellur. 2:96. 1836 [1837], nom. alt. Rafinesquia Raf. (Leguminosae); op. cit. 3:6. 1836 [1837],

nom.=Hosackia Dougl. (1829).

comosa Raf. Il.cc., nom. alt. Rafinesquia comosa Raf. (Lotus pinnatus Hook. Bot. Mag. 56: t. 2913. 1829 [Hosackia bicolor Dougl. ex Benth. in Lindl. Bot. Reg. 15: t. 1257, 1829]). Northwestern United States=Hosackia bicolor Dougl. ex Benth.

FOLIANTHERA Raf. Sylva Tellur. 120. 1838, descr. = Stryph-

nodendron Mart. (1837).

guianensis Raf. l.c., nom. (Mimosa guianensis Aubl.; Acacia guianensis Willd.). Guiana=Stryphnodendron guianense (Aubl.) Benth.

GEOLOBUS Raf. New Fl. N. Am. 1:81. 1836, descr. = Voandzeia Thouars (1806).

flavus Raf. op. cit. 85, descr. (Glycine subterranea Linn.).
Africa=Voandzeia subterranea (Linn.) Thouars.

GLEDITSCHIA Scop. (1777) = Gleditsia Linn.

heterophylla Raf. Fl. Ludovic. 99. descr. 10, nom., 1817 (Fevier Rob. Voy. Louis. 3:497. 1807); Sylva Tellur. 121. 1838, nom. (Gleditsia), sub Melilobus heterophyla Raf.; New Fl. N. Am. 3:95. 1836 [1837], nom.; Herb. Raf. 55. 1833, nom. Louisiana = Gleditsia triacanthos Linn.

GLYCINE Linn.

montana Raf. Atl. Jour. 1:154. 1832, descr.; New Fl. N. Am. 1:84. 1836, nom. in syn. sub Lobomon montanum Raf. Alleghany Mountains = Amphicarpa bracteata (Linn.) Fernald.

pedunculosa Raf. Med. Repos. II. 5:360. 1808, descr.; Jour. Bot. (Paris) 1:227. 1809, descr. New Jersey, Maryland, Virginia=Amphicarpa bracteata (Linn.) Fernald.

\*GONANCYLIS Raf. First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom.; Fl. Tellur. 1:85. 1836 [1837], nom. nov. Apios sensu Pursh=Apios Medic. (1787), nom. conserv. (Bradlea Adans., 1763).

\*thyrsoidea Raf. First Cat. Bot. Gard. Transylv. Univ. 14.

1824, nom. Kentucky.

\*GONONDRA Raf. New Fl. N. Am. 3:86. 1836 [1838], nom. sub Agastianis secundiflora Raf. = Sophora Linn.

GUMIFERA Raf. Sylva Tellur. 118. 1838, descr. = Acacia Willd. (1805).

arabica Raf. ex Jacks\*. Ind. Kew. 1:1072. 1893 (Acacia arabica Willd.). Africa, Asia.

nilotica Raf. ex Jacks\*. l.c. (Acacia nilotica Delile). Egypt= Acacia arabica Willd.

vera Raf. ex Jacks\*. l.c. (Acacia vera Willd.). Africa, Asia= Acacia arabica Willd.

HECATANDRA Raf. Sylva Tellur. 120. 1838, descr.=Acacia Willd. (1805).

oxycedrus Raf. l.c., nom. (Acacia oxycedrus Sieb.). Australia. suaveolens Raf. 1.c., nom. (Acacia suaveolens Willd.). Aus-

HEDYSARUM Scop.

\*leucanthemum Raf. First Cat. Bot. Gard. Transylv. Univ 14. 1824, nom. Kentucky.

\*leucanthum Raf. ex M'Murtrie, Sketch. Louisv. 219. 1819.

nom. Kentucky.

\*scabrum Raf. Med. Repos. II. 5:354, 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. Central Atlantic United States. An H. scabrum Moench (1794)=? Desmodium canadense (Linn.) DC.

†HEMIDESMA Raf. Sylva Tellur. 179. 1838, nom., in indice= sea.

HEMIDESMAS Raf. Sylva Tellur. 119. 1838, descr., non R. Br. (1809) = Neptunia Lour. (1790).

diffusa Raf. ex Jacks\*. Ind. Kew. 1:1126. 1893 (Desmanthus

diffusus Willd.). Tropical America. plena Raf. ex Jacks\*. l.c. (Desmanthus plenus Willd.). Tropi-

cal America = Neptunia plena (Willd.) Benth.

HEPTEIRECA Raf. Sylva Tellur. 126. 1838, descr.=Chamaecrista Moench (1794)=Cassia Linn.

glandulosa Raf. op. cit. 127, descr. (Cassia glandulosa sensu Hook. Bot. Mag. 62: t. 3435. 1835, non Linn.). South America=? Cassia virgata Sw.

HERPETICA Raf. Sylva Tellur. 123. 1838, descr. = Cassia Linn. alata Raf. 1.c., nom. (Cassia alata Linn.). Tropical America. HIPPOCREPIS Linn.

\*unisiliqua Raf. [H. unisiliquosa Linn.] var. biflora Raf. Chloris Aetn. 5. 1815. nom. Sicily.

HIPPOCRIS Raf. Princ. Somiol. 27. 1814, nom. nov. Hippo-crepis Linn.; Fl. Tellur. 1:84. 1836 [1837], nom. (Hippocrepis Linn.) = praec.

INDIGOFERA Linn.

\*amena Raf. First Cat. Bot. Gard. Transylv. Univ. 18. 1824, nom.=I. amoena Ait. South Africa.

INGARIA Raf. Sylva Tellur. 119. 1838, sub. Spiroloba Raf., nom. nov. Inga Scop. (1777).

IOCAULON Raf. New Fl. N. Am. 2:53. 1836 [1837], descr. subgen. Crotalaria Linn.; Good Book 45. 1840, nom.= Crotalaria Linn.

cuneifolium Raf. op. cit. 55, nom. alt. Crotalaria cuneifolia Raf. North America.

lineare Raf. op. cit. 54, nom. alt. Crotalaria linearis Raf. North America.

longipes Raf. 1.c., nom. alt. Crotalaria longipes Raf. North America.

lunulatum Raf. op. cit. 55, nom. alt. Crotalaria lunulata Raf. North America.

ovale Raf. 1.c., nom. alt. Crotalaria ovalis Pursh. North America.

var. obovatum Raf. op. cit. 56, nom. parvifolium Raf. l.c., nom.

pilosum Raf. op. cit. 54, nom. alt. Crotalaria pilosa Raf. North America.

var. flexuosum Raf. op. cit. 55, descr.

simplex Raf. 1.c., descr.

pumilum Raf. op. cit. 56, nom. alt. Crotalaria pumila Raf. North America.

sagittale Raf. l.c., nom. alt. Crotalaria sagittalis Linn. North America.

ISANDRINA Raf. Sylva Tellur. 126. 1838, descr. = Cassia Linn. arborescens Raf. I.c., descr. (Cassia emarginata Linn.). Tropical America.

IXINA Raf. Atl. Jour. 1:144. 1832, nom. subnud.=Krameria Loefl: (1758).

JAMESIA Raf. Atl. Jour. 1:145. 1832, descr. = Dalea Juss. (1789), non Mill. (1754), nom. conserv. (Parosela Cav., 1802).

obovata Raf. 1.c., nom. (Psoralea jamesii Torr.). Rocky Mountains=Dalea jamesii (Torr.) Torr. & Gray.

\*JULIBRISIN Raf. New Fl. N. Am. 1:41. 1836, nom. sub Acacia (Acakia julibris[s]in Willd.=Albizzia [Albizia] Durazz. (1772), \*arborea Raf. 1.c., nom. (Acacia julibrissin Willd.). India=

Albizzia julibrissin Durazz.

KONXIKAS Raf. Aut. Bot. 78. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:93. 1921, nom.=? Lathyrus Linn. acuminatum Raf. l.c., descr.; Pennell, l.c., nom. Siberia? KRAUNHIA Raf. Med. Repos. II. 5:352. 1808, nom.; Jour. Bot. (Paris) 2:171. 1809, nom.; A. Gray, Am. Jour. Sci. 40:228. 1841, nom.=Wisteria Nutt. (1818), nom. conserv. (Kraunhia Raf., 1808; Diplonyx Raf., 1817; Thyrsanthus EII. 1817).

frutescens Raf. 11.cc., nom. (Glycine frutescens Linn.). eastern United States=Wisteria frutescens (Linn.) Poir. \*KRAUNSHIA Raf. Act. Soc. Linn. Bordeaux 6:265. 1834,

nom., nota.=praec.

LABURNUM Linn.

pendulum Raf. Sylva Tellur. 24. 1838, nom. (Cytisus laburnum Linn.). Europe=Laburnum anagyroides Medic.

LASINIA Raf. New Fl. N. Am. 2:46, nom. 48, descr. 1836 [1837]; Good Book 45. 1840, nom. = Baptisia Vent. (1808). bicolor Raf. New Fl. N. Am. 2:49. 1836 [1837], descr. Arkansas, Texas.

bracteata Raf. op. cit. 50, descr. (Baptisia bracteata Muhl.; B. leucophaea Nutt.). Carolina to Missouri and Louisiana

B. bracteata Muhl.

cinerea Raf. l.c., descr. (Baptisia villosa auctt.). Carolina= B. cinerea (Raf.) Fernald & Schubert, Rhodora 50:201. 1948.

fulva Raf. op. cit. 49, descr. Tennessee and Arkansas=B. villosa (Walt.) Ell.

grandifolia Raf. 1.c., 49, nom. alt. L. bicolor Raf. Arkansas, Texas.

mollis Raf. op. cit. 50, descr. (Baptisia mollis DC.). North Carolina = Thermopsis mollis (Michx.) M. A. Curtis. pallens Raf. op. cit. 49, descr. Alabama and Appalachian

Mountains.

reticulata Raf. op. cit. 48, descr. Carolina, Alabama, Florida. LATHYRUS Linn.

incurvus Raf. Atl. Jour. 1:151. 1832, descr., non Willd. (1800). Lakes Erie and Ontario.

\*pusillus Muhl. Cat. 65. 1813, nom. subnud.; Raf. Fl. Ludovic. 137. 1817, nom. Mississippi or Louisiana. An Lathyrus pusillus Ell.?

\*LEPEDERA Raf. Med. Repos. II. 5:351. 1808, nom., sphalm.= Lespedeza Michx. (1803).

LOBOMON Raf. New Fl. N. Am. 1:81. 1836, descr.=Amphicarpa Ell. (1818), nom. conserv. (Falcata J. F. Gmel., 1791; Savia Raf., 1808). acutifolium Raf. op. cit. 84, descr. Ohio, Illinois=Amphi-

carpa bracteata (Linn.) Fernald.

montanum Raf. l.c., descr. (Glycine montana Raf.). Alleghany Mountains of Pennsylvania = Amphicarpa bracteata (Linn.) Fernald.

obtusifolium Raf. 1.c., descr. Kentucky=Amphicarpa bracteata (Linn.) Fernald.

sarmentosum Raf. 1.c., descr. (Glycine sarmentosa Roth; Amphicarpa sarmentosa Ell.). Carolina=Amphicarpa bracteata (Linn.) Fernald.

LOMOPLIS Raf. Sylva Tellur. 118. 1838, descr.=Mimosa Linn. acantholoba Raf. l.c., nom. (Acacia acantholoba Humb. & Bonpl.). Tropical America=Mimosa acantholoba Poir.

ceratonia Raf. I.c., nom. (Acacia ceratonia Willd.). Tropical America=Mimosa ceratonia Linn.

LOTULUS Raf. Am. Monthly Mag. Crit. Rev. 2:268. 1818, nom. nov. Lotus Linn.

LUGAION Raf. Sylva Tellur. 22. 1838, descr.=Genista Linn. angulatum Raf. 1.c., nom. (Spartium angulatum Linn.). Asia Minor = Genista angulata Linn. (G. parviflora Poir.).

aphylum Raf. l.c., nom. (Spartium aphyllum Pall.). Caspian region = Eremosparton aphyllum (Pall.) Fisch. & Mey.

etnense Raf. l.c., nom. (Spartium trispermum Sm.). Sicily=Genista aethnensis DC.=G. trisperma (Sm.) Spach. ferox Raf. ex Jacks\*. Ind. Kew. 2:123. 1894 (Spartium ferox

Poir.). North Africa=Genista ferox Poir. linifolium Raf. Sylva Tellur. 22. 1838, nom. (Spartium linifolium Desf.). North Africa=Cytisus linifolius Lam. multiflorum Raf. 1.c., nom. (Spartium multiflorum Ait.).

Mediterranean region=Cytisus albus Link. radiatum Raf. ex Jacks\*. Ind. Kew. 2:123. 1894 (Spartium radiatum Linn.). Southern Europe=Genista radiata (Linn.)

umbellatum Raf. Sylva Tellur. 22. 1833, nom. (Spartium umbellatum L'Hérit). North Africa=Genista umbellata Poir.

LUPINUS Linn.

\*elatior Raf. Herb. Raf. 51. 1833, nom. Rocky Mountains or Oregon.

\*levigatus Raf. op. cit. 62, nom. Kentucky or Illinois. \*oregonensis Raf. op. cit. 51, nom. Oregon.

\*sericeus Raf. 1.c., nom. Rocky Mountains or Oregon.
\*waltoni Raf. 1.c., nom. Rocky Mountains or Oregon.
\*LYGAION Raf. Sylva Tellur. 25. 1838, sub Diaxulon Raf.,
nom.=Lugaion Raf. op. cit. 22=Genista Linn.
LYGOPLIS Raf. Sylva Tellur. 23. 1838, descr.=Genista Linn.

\*ferox Raf. l.c., nom. (Spartium ferox Poir.). North Africa= Genista ferox Poir.

horridum Raf. l.c., nom. (Spartium horridum Vahl). Mediterranean region=Genista horrida DC.

spinosum Raf. 1.c., nom. (Spartium spinosum Asso). Europe = Genista scorpius DC.

villosum Raf. 1.c., nom. (Spartium villosum Sieber). Greece =Cytisus creticus Boiss. & Heldr.

MANDARUS Raf. Sylva Tellur. 122. 1838, descr. = Bauhinia

acuminata Raf. I.c., nom. (Bauhinia acuminata Vell.). Brazil. divaricata Raf. I.c., nom. (Bauhinia divaricata Linn.). South America.

pescapra Raf. l.c., nom. (Bauhinia pes-caprae Cav.). Mexico. rotundifolia Raf. l.c., nom. (Bauhinia rotundifolia Pers.). Mexico.

utimuta Raf. ex Jacks\*. Ind. Kew. 2:160. 1894=B. outimouta Aubl. Guiana.

MEIEMIANTHERA Raf. Sylva Tellur. 25. 1838, descr. = Cytisus Linn., sect. Trianthocytisus Griseb.

eolica Raf. l.c., descr. (Cytisus aeolicus Guss.; Lindl. Bot. Reg. 9: t. 1902. 1836). Lipari or Eolian Islands.

MELILOBUS (Mitchell, 1748); Raf. Sylva Tellur. 121. 1838, descr.=Gleditsia Linn. (Gleditschia Scop.).

heterophyla Raf. 1.c., descr. (Gleditschia heterophylla Raf.). Louisiana = Gleditsia triacanthos Linn.

MELILOTUS Linn.

robini Raf. Fl. Ludovic. 102. 1817, descr. (Mélilot des Indes Rob. Voy. Louis. 3:502. 1807). Louisiana=Melilotus indica Linn.

MIMOSA Linn.

chionacantha Raf. Fl. Ludovic. 99. 1817, descr. (Mimosa eburnea sensu Rob. Voy. Louis. 3:496. 1807); New Fl. N. Am. 1:42. 1836, nom., nota.; Sylva Tellur. 119. 1838, nom. in syn. sub Panthocarpa chionacantha Raf.). Louisiana, Florida = Acacia farnesiana (Linn.) Willd. \*illinoensis Raf. Casket 1827:195. 1827, nom. Illinois. Prob.

Desmanthus illinoensis (Michx.) MacM.

\*julibrisn Raf. Med. Fl. 2:243. 1830, nom.=Albizzia julibrissin Durazz. \*lilibrizn Raf. First Cat. Bot. Gard. Transylv. Univ. 22. 1824,

nom., sphalm.=praec.
MITOSTAX Raf. Sylva Tellur. 120. 1838, descr.=Prosopis Linn.

pallida Raf. 1.c., nom. (Acacia pallida Humb. & Bonpl.). Tropical America=Prosopis juliflora (Sw.) DC

MONOPLECTRA Raf. Fl. Ludovic. 106. 1817, nom. alt. Darwinia Raf.; Fl. Tellur. 1:16. 1836 [1837], nom. Esesbania Scop. (1777), nom. conserv. (Sesban Adans., 1763; Agati Adans., 1763).

MONOSEMEION Raf. Aut. Bot. 82. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:93. 1921, nom. = Amorpha Linn. obliquatum Raf. 1.c., descr.; Pennell, 1.c., nom. North America?

MONOTELES Raf. Sylva Tellur. 122. 1838, descr. = Bauhinia Linn.

paradoxa Raf. l.c., nom. (Bauhinia monandra Raf.). Hab.? NEFRAKIS Raf. Sylva Tellur. 69. 1838, descr.=Brya P. Browne (1756).

ebenus Raf. 1.c., nom. (Aspalathus ebenus Linn.). West Indies, South America=Brya ebenus (Linn.) DC.=B. buxifolia (Murr.) Urb.

NELTUMA Raf. Sylva Tellur. 119. 1838, descr.=Prosopis Linn. arenosa Raf. I.c., nom. [Acacia arenosa Willd.]. Tropical America=Mimosa arenosa Poir.

juliflora Raf. 1.c., nom. [Acacia juliflora Willd.]. Tropical America=Prosopis juliflora (Sw.) DC

NICTITELLA Raf. Sylva Tellur. 128. 1838, descr.=Chamaecrista Moench (1794)=Cassia Linn. sect. Chamaecrista DC. amena Raf. 1.c., nom. (Cassia nictitans Linn.). Tropical America. (Cassia procumbens Linn.).

\*amoena Raf. ex S. Wats. Bibl. Ind. N. Am. Bot. 1:207.

1878, nom. in syn. = praec.

aspera Raf. 1.c., nom. [Cassia aspera Muhl. Cat. 42. 1813].

Southeastern United States. (Chamaecrista aspera Greene). mimosoides Raf. 1.c., nom. [Cassia mimosoides Linn.]. Tropical Asia.

NUBIGENA Raf. Sylva Tellur. 23. 1838, descr. = Cytisus Linn.

tenerifa Raf. l.c., descr. (Spartium nubigenum Ait.; Cytisus nubigenus Link). Teneriffe=Cytisus fragrans Lam.

OCTELISIA Raf. Sylva Tellur. 129. 1838, descr.=Cassia Linn.

aurea Raf. op. cit. 130, descr. (Cassia purpurea Roxb.; Ker-Gawl. Bot. Reg. 10: t. 856. 1825). Bengal=Cassia sophera

\*OESCHYNOMENE Raf. Fl. Ludov. 137. 1817, nom. sub Sesbania Scop. sphalm.=Aeschynomene Linn. (Glottidium Desv., 1813).

\*platycarpa Raf. 1.c., nom. sub Sesbania macrocarpa Muhl. Louisiana = Aeschynomene platycarpa Michx. = Sesbania vesicaria Ell. (Glottidium vesicarium (Jacq.) Harper).

OPHIOCAULON Raf. Sylva Tellur. 129. 1838, descr.=Chamaecrista Moench (1794) = Cassia Linn.

serpens Raf. l.c., nom. (Cassia serpens Linn.). Tropical America. (Chamaecrista serpens Greene).

ORBEXILUM Raf. Atl. Jour. 1:145. 1832, descr.=Psoralea

Linn.

latifolium Raf. 1.c., nom. (Psoralea latifolia Torr.). Missouri =Psoralea onobrychis Nutt. (Orbexilum onobrychis Rydb.,

OROBUS Linn.=Lathyrus Linn.
siculus Raf. Car. Nuov. Gen. Sp. Sicil. 72. 1810, descr.;
Stat. Gen. Sicil. 28. 1810, nom.; Chloris Aetn. 5, 9. 1815, nom. Sicily.

OXYPOGON Raf. Jour. Phys. Chim. Hist. Nat. 89:98. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 237. 1820, descr.= Lathyrus Linn.

elegans Raf. I.c., descr.; Isis von Oken 1: Lit. Anz. 238. 1820, descr.; DC. Prodr. 2:355. 1825, nom. in syn. sub Vicia dumetorum Linn. Hudson River, New York=Lathyrus venosus Muhl.

OXYTROPIS DC.

\*bradburyi Raf. Herb. Raf. 38. 1833, nom. Upper Missouri (Mandan country) = Dakota.

\*mandanensis Raf. op. cit. 39, nom. Upper Missouri (Mandan

country) = Dakota.

PANISIA Raf. Sylva Tellur. 128. 1838, descr. = Cassia Linn. (Peiranisia Raf., 1838).

biflora Raf. op. cit. 129, nom. (Cassia biflora Linn.; Lindl. Bot. Reg. 16: t. 1310. 1830). South America (Peiranisia biflora Pittier)

PANTHOCARPA Raf. Neogen. 2. 1825, descr.; Sylva Tellur. 119. 1838, descr.=Acacia Willd. (1805). †chionacantha Raf. Sylva Tellur. l.c., descr. (Mimosa chio-

nacantha Raf.). Florida and Louisiana=Acacia farnesiana (Linn.) Willd.

PATRINIA Raf. Jour. Phys. Chim. Hist. Nat. 89:97. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 237. 1820, descr.; Herb. Raf. 38. 1833, nom., nota, non Juss. (1807) = Vexibia

Raf. (1825)=Sophora Linn.
sericea Raf. Jour. Phys. et Isis Il.cc., descr., nom. (Sophora sericea Nutt. fide Raf. Herb. Raf. l.c.). Missouri=Sophora

sericea Nutt.

PEIRANISIA Raf. Sylva Tellur. 127. 1838, descr. = Cassia

aversiflora Raf. 18 1.c., descr. (Cassia aversiflora Hook. Bot. Mag. 53: t. 2638. 1826). Brazil. aversifolia Raf. ex Jacks\*. Ind. Kew. 2:447. 1894, sphalm.=

praec.

PERICAULON Raf. New Fl. N. Am. 2:46, nom. 50, descr. 1836 [1837]; Good Book 45. 1840, nom. = Baptisia Vent. (1808). cordatum Raf. op. cit. 51, nom., nota. in obs. sub P. perfoliatum Raf. North America.

microphylum Raf. 1.c., descr. (Baptisia microphylla Nutt.).

Alabama, Florida.

perfoliatum Raf. l.c., descr. [Baptisia perfoliata R. Br.]. Carolina to Florida=Baptisia perfoliata (Linn.) R. Br.

18 The entry is "St. aversiflora Raf." Here Rafinesque apparently first adopted a generic name beginning with S, changed it to Peiranisia in the generic entry but neglected to change it for the binomial; or if not, then a typographic error is involved.

PERIMA Raf. Sylva Tellur. 118. 1838, descr.=Entada Adans.

(1763), nom. conserv. (Gigalobium Boehm., 1760). odorata Raf. l.c., descr. (Mimosa scandens Linn.; Perimkaku-valli Rheede, Hort. Malabar. 8:59. t. 32. 1688; Faba marina Rumph. Herb. Amb. 5:5. t. 4. 1747) [India, Moluccas] = Entada phaseoloides (Linn.) Merr. (Entada scandens Benth.); see Merrill, Interpret. Rumph. Herb. Amb. 253. 1917.

\*PETAGNIANA Raf. Specch. Sci. 1:157. 1814, nom. in obs.= Petagnana Gmel. (1791)=Smithia Ait. (1789), nom. con-

serv. (Damapana Adans., 1763).

\*PETALVITEMON Raf. Western Rev. Miscel. Mag. 1:95. 1819. nom., sphalm. fide Raf. op. cit. 128=Petalostemon Michx.

candidum Raf. 1.c., nom. Kentucky=Petalostemon candidum Michx.

purpureum Raf. 1.c., nom. Kentucky=Petalostemon purpureum (Vent.) Rydb.

PHANERA Lour. = Bauhinia Linn.

\*scandens Raf. Sylva Tellur. 122. 1838, nom. (Bauhinia scandens Linn.). India.

PHYSONDRA Raf. Atl. Jour. 1:145. 1832, descr. = Phaca Linn. dispar Raf. l.c., nom. (Orobus dispar Nutt.). Fort Mandan [North Dakota] = Homalobus dispar (Nutt.) Nutt.

longifolia Raf. 1.c., nom. [Psoralea longifolia Pursh; Orobus longifolius Nutt.]. Missouri River=Phaca longifolia (Pursh) Nutt.

PISUM Linn.

biflorum Raf. Car. Nuov. Gen. Sp. Sicil. 71. 1810, descr.; Stat. Gen. Sicil. 28. 1810, nom. Sicily.

dasigynum Raf. Am. Monthly Mag. Crit. Rev. 4:194. 1819, nom. nov. Pisum maritimum sensu Nutt. North America= Lathyrus japonicus (Thunb.) Willd. var. glaber (Ser.) Fernald (*Lathyrus maritimus* Bigel.); see Fernald, Rhodora 34:181. 1932.

parviflorum Raf. Med. Repos. II. 5:354. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. Eastern United States.

PLEUROMENES Raf. Sylva Tellur. 144. 1838, descr. = Prosopis Linn.

heterocarpa Raf. op. cit. 145, descr. (Acacia heterocarpa Delile). Syria, Egypt, Nubia=Prosopis stephaniana Delile). Syria, (Willd.) Spreng. Syria,

POPONAX Raf. Sylva Tellur. 118. 1838, descr. = Acacia Willd. (1805).

farnesiana Raf. l.c., nom. [Mimosa farnesiana Linn.; Acacia farnesiana Willd.]. Pantropic.

tortuosa Raf. 1.c., nom. (Mimosa tortuosa Linn.; Acacia tortuosa Willd.). South America.

PSORALEA Linn.

\*longipes Raf. Herb. Raf. 63. 1833, nom.=Kentucky or Illinois.

\*rigida Raf. op. cit. 57, 79, nom. Florida. †RAFINESQUIA Raf. Fl. Tellur. 1:17. 1836 [1837[, nom.; op. cit. 2:96. 1836 [1837], descr.=Hosackia Dougl. (1829).

comosa Raf. op. cit. 2:96, descr. (Lotus pinnatus Hook. Bot. Mag. 56: t. 2913. 1829). Oregon=Hosackia bicolor Dougl. ex Benth. Bot. Reg. 15: t. 1257, 1829.
obovata Raf. op. cit. 97, nom., nota. Oregon.
\*RATANHIA Raf. Med. Fl. 2:234. 1830, nom. nov. provis.=

Krameria Loefl. (1758).

\*officinalis Raf. l.c., nom. nov. Krameria triandra Ruiz & Pavon. Peru.

RESUPINARIA Raf. Sylva Tellur. 115. 1838, descr. = Sesbania Scop. (1777), nom. conserv. (Sesban Adans., 1763; Agati Adans., 1763).

grandiflora Raf. op. cit. 116, nom. (Aeschynomene grandiflora Linn.; Sesbania grandiflora Pers.; Coronilla grandiflora Willd.). India=Sesbania grandiflora (Linn.) Pers.

RETAMA Raf. Sylva Tellur. 22. 1838, descr.=Genista Linn.

albiflora Raf. 1.c., descr. (Spartium monospermum Linn.; Sims Bot. Mag. 17: t. 683. 1803; Genista monosperma Lam.; Lindl. Bot. Reg. 22: t. 1918. 1836). Mediterranean region=Genista monosperma (Linn.) Lam.

lutea Raf. l.c., descr. (Spartium sphaerocarpum Linn.). Mediterranean region=Genista sphaerocarpa (Linn.) Lam.

\*RIPARIA Raf. Good Book 45. 1840, nom.=seq.
RIPASIA Raf. New Fl. N. Am. 2:46, nom., 48, descr., 1836 [1837] = Baptisia Vent. (1808).

RIPASIA (continued).

cerulea Raf. op. cit. 48, descr. (Podalyria coerulea Michx.; Baptisia \*coerulea Eaton, Man. ed. 4. 228. 1824; Sophora australis Linn.; Sophora coerulea Moench). Maryland to Ohio, Louisiana and Florida=Baptisia australis (Linn.) R. Br.

var. macrostachys Raf. 1.c., nom. obtusifolia Raf. l.c., nom. rhombifolia Raf. l.c., nom.

ROBINIA Linn.

Iudoviciana Raf. Fl. Ludovic. 164. 1817, nom. nov. provis., nota. Louisiana (Lake Bistineau).

#ROSTELLA Raf. Sylva Tellur. 129. 1838, descr., subgen. Cassia Linn. (Type Cassia ruscifolia Jacq.) = Cassia Linn.

SAVIA Raf. Med. Repos. II. 5:352. 1808, nom.; Jour. Bot. (Paris) 2:171. 1809, nom.; Jour. Phys. Chim. Hist. Nat. 89:260. 1819, nom. sub Thyrsanthus Ell.; Fl. Tellur. 1:16. 1836 [1837], nom., non Willd. (1805) = Amphicarpa Ell. (1818), nom. conserv. (Falcata J. F. Gmel., 1791; Savia Raf., 1808).

volubilis Raf. 11.cc., nom. (Glycine monoica Linn.); A. Gray, Am. Jour. Sci. 40:228. 1841, nom. Eastern North Amer-

ica = Amphicarpa bracteata (Linn.) Fernald.

SCALIGERA Adans.; Raf. Sylva Tellur. 69. 1838, descr.= Aspalathus Linn.

orientalis Raf. l.c. [Aspalathus orientalis Linn.]. Asia Minor.

SCHRANKIA Willd. (1806), non Medic. (1792), non. conserv. (Leptoglottis DC., 1825; Morongia Britton, 1894).

mexicana Raf. New Fl. N. Am. 1:43. 1836, descr. (Mimosa quadrivalvis Linn.). Mexico and? Texas=Schrankia quadrivalvis (Linn.) Merr. (S. aculeata Willd.; Leptoglottis quadrivalvis Britton & Rose, 1928).

SCOLOBUS Raf. Am. Monthly Mag. Crit. Rev. 4:193. 1819, nom. nov. provis. (Cytisus rhombifolius Pursh); Jour. Phys. Chim. Hist. Nat. 89:259. 1819, nom. (Cytisus rhombifolius Pursh); Act. Soc. Linn. Bordeaux 6:265. 1834, nom. sub *Thermopsis* R. Br., iter. Merr. Proc. Am. Philos. Soc. 86:87. 1942=Thermopsis R. Br. (1811).

SCOLODIA Raf. Sylva Tellur. 128. 1838, descr. = Cassia Linn. viminea Raf. 1.c., nom. (Cassia viminea Linn.). Tropical

America.

SEMETOR Raf. Sylva Tellur. 69. 1838, descr. = Derris Loureiro (1790), nom. conserv. (Salken Adans., 1763; Solori Adans., 1763; Deguelia Aubl., 1775; Cylizoma Neck., 1790). arborea Raf. l.c., descr. (Asapalathus arborea Lour.). Indo-

China (Annam) = Derris heptaphylla (Linn.) Merr.; see Merrill, Trans. Am. Philos. Soc. II. 24(2): 206. 1935. SENEGALIA Raf. Sylva Tellur. 119. 1838, descr.=Acacia

Willd. (1805).

retusa Raf. 1.c., nom. [Mimosa retusa Jacq.]. West Indies= Acacia riparia H.B.K.

triacantha Raf. 1.c., nom. (Mimosa senegal Linn.). Tropical Africa, India=Acacia senegal (Linn.) Willd.

SENNA Mill.=Cassia Linn.

riparia Raf. Med. Fl. 1:94. 1828, nom. nov. Cassia marilandica Linn., iter. Man. Med. Bot. 94. 1841; Casket 1830:521. 1830, nom. Eastern North America = Cassia marilandica Linn.

SENSITIVA Raf. Sylva Tellur. 119. 1838, descr.=Mimosa Linn.

pudica Raf. ex Jacks\*. Ind. Kew. 2:883. 1895 (Mimosa pudica Linn.). Tropical America.

SERICANDRA Raf. Sylva Tellur. 119. 1838, descr.=Albizzia [Albizia] Durazz. (1772).

julibrisin Raf. 1.c., nom. (Acacia julibrissin Willd.). India=

Albizzia julibrissin Durazz.
lophantha Raf. 1.c., nom. (Acacia lophantha Willd.). Aus-

tralia=Albizzia lophantha (Willd.) Benth.
pennata Raf. l.c., nom. (Acacia pennata Willd.). India=
Acacia pennata Willd.

SPARTIUM Linn.

\*aetnense Raf. Chloris Aetn. 9. 1815, nom.; Précis Découv. Somiol. 1814, nom. (p. 4 of cover); Jour. Bot. (Desv.) 4:277 (err. 177). 1814, nom. Sicily=S. aetnense Bivona (1807).

angulatum Raf. Précis Découv. Somiol. 37. 1814 descr.; Jour. Bot. (Desv.) 4:269. 1814, descr. Maryland, near

Annapolis=Cytisus scoparius (Linn.) Link. \*etnense Raf. Specch. Sci. 1:17. 1814, descr. Sicily=S. aetnense Bivona (1807).

SPATULIMA Raf. Fl. Tellur. 2:83. 1836 [1837], descr.= Lathyrus Linn.

angustifolia Raf. l.c., descr. (Orobus sessilifolius Sm.; Hook. Bot. Mag. 55: t. 2796. 1828). Crimea, Greece, Sicily. SPIROLOBA Raf. Sylva Tellur. 119. 1838, descr.=Pithecellobium Mart. (1837), nom. conserv. (Zygia Boehm., 1760; Pithecolobium auctt.).

bigemina Raf. 1.c., nom. (Mimosa bigemina Linn.). India= Pithecellobium (Pithecolobium) bigeminum (Linn.) Mart. fastuosa Raf. l.c., nom. (Inga fastuosa Willd.). Venezuela. unguis Raf. l.c. nom. (Mimosa unguis-cati Linn.). Tropi-

cal America=Pithecellobium (Pithecolobium) unguis-cati (Linn.) Mart.

STEMEIENA Raf. Atl. Jour. 1:144. 1832, nom. subnud. sub Dimenops Raf.=Krameria Loefl. (1758). \*STREPSILOBA Raf. Sylva Tellur. 119. 1838, nom.=seq. STREPSILOBUS Raf. Sylva Tellur. 117. 1838, descr.=Entada

Adans. (1763), nom. conserv. (Gigalobium Boehm., 1760). scandens Raf. op. cit. 118, descr. (Mimosa scandens sensu Sw.). West Indies=Entada gigas (Linn.) Fawc. & Rendle. \*STYLVIANTHES Raf. Western Rev. Miscel. Mag. 1:94. 1819, nom., sphalm.=Stylosanthes Sw. (1788).

\*elatior Raf. l.c., nom. Kentucky=Stylosanthes elatior Sw.= Stylosanthes biflora (Linn.) Britton, Sterns & Poggenb. TAGERA Raf. Sylva Tellur. 129. 1838, descr.=Chamaecrista

Moench (1794) = Cassia Linn.

filiformis Raf. I.c., nom. (Cassia tagera Linn.). Tropical America. (Chamaecrista tagera Standl.).

TELESTRIA Raf. Sylva Tellur. 122. 1838, descr.=Bauhinia

Linn.

purpurea Raf. 1.c., nom. (Bauhinia purpurea Linn.). India. racemosa Raf. 1.c., nom. (Bauhinia racemosa Lam.). India. #TERELEGUS Raf. Sylva Tellur. 129. 1838, descr., subgen.

Tagera Raf. (Type Cassia corymbosa Lam.) = Cassia Linn. TETRODEA Raf. New Fl. N. Am. 1:81. 1836, nom. (Type Glycine monoica Linn.) = Amphicarpa Ell. (1818),

conserv. (Falcata J. F. Gmel., 1791; Savia Raf., 1808). comosa Raf. ex Jacks\*. Ind. Kew. 2:1055. 1895 (Glycine comosa Linn.)=Amphicarpa bracteata (Linn.) Fernald. Eastern North America.

monoica Raf. ex Jacks\*. 1.c. (Glycine monoica Linn.). Eastern North America=praec.

subterranea Raf. ex Jacks\*. 1.c. (Glycine subterranea Linn.)= Voandzeia subterranea (Linn.) Thouars. Tropical Africa. \*TETRODES Raf. New Fl. N. Am. 1:84. 1836, nom.=Tetrodea

Raf.=Amphicarpa Ell. (1818), nom. conserv. (Falcata J. F. Gmel., 1791; Savia Raf., 1808).

THYRSANTHUS Ell. (1818) = Wisteria Nutt. (1818).

conserv. (Kraunhia Raf., 1808; Diplonyx Raf., 1817). \*scandens Raf. First. Cat. Bot. Gard. Transylv. Univ. 12. 1824, nom. Kentucky. Prob.=Wisteria speciosa Nutt. #TRANSVERSULA Raf. Sylva Tellur. 129. 1838, descr. sub

Tagera Raf., subgen. Cassia Linn. (Type Cassia chinensis Jacq.) = Cassia Linn.

TRICOILENDUS Raf. Fl. Tellur. 2:97. 1836 [1837], descr.= Indigofera Linn.

microphylus Raf. l.c., descr. (Lotus microphyllus Hook. Bot. Mag. 55: t. 2808. 1828). South Africa=Indigofera gracilis Spreng.

TRIENDILIX Raf. New Fl. N. Am. 1:85. 1836, descr. = Glycine Linn.

clandestina Raf. 1.c., descr. (Glycine clandestina Wendl.). Australia.

TRIFOLIUM Linn.

ludovicianum Raf. Fl. Ludovic. 102. 1817, descr. (Trèfle 1, Rob. Voy. Louis. 3:501. 1807). Louisiana.

TROPITOMA Raf. New Fl. N. Am. 2:19. 1836 [1837], descr.= Desmodium Desv. (1813), nom. conserv. (Meibomia Adans., 1763; Pleurolobus J. St. Hil., 1812).
paradoxa Raf. 1.c., descr. Kentucky = Desmodium leucanthum

Raf. l.c., = D. marilandicum (Linn.) DC. †VERZINUM Raf. Herb. Raf. 38. 1833, nom.; Act. Soc. Linn. Bordeaux 6:265. 1834, nom., nota, iter. Merr. Proc. Am. Philos. Soc. 86:87. 1942, op. cit. 90, nom., nota, non Raf. (1838) = Thermopsis R. Br. (1811).

\*rhombifolium Raf. Herb. Raf. 38. 1833, nom. (Thermopsis rhombifolia Richards.; Cytisus rhombifolius Pursh). Upper Missouri (Mandan country) = Dakota = Thermopsis rhombifolia (Nutt.) Richards.

VERZINUM Raf. Sylva Tellur. 23. 1838, descr., non Raf. (1833) = Cytisus Linn.

arboreum Raf. 1.c., nom. (Spartium arboreum Desf.). North Africa=Cytisus arboreus (Desf.) DC.

patens Raf. 1.c., nom. (Spartium patens Murr.). Iberian

Peninsula=Cytisus patens Murr.

VEXIBIA Raf. Neogen. 3. 1825, nom. nov. Patrinia Raf. (1819), non Patrinia Juss. (1807); Atl. Jour. 1:144. 1832, descr.; Herb. Raf. 38. 1833, nom.; New Fl. N. Am. 2:53. 1836 [1837], nom.=Sophora Linn.

\*sericea Raf. Atl. Jour. 1:144. 1832, nom. (Sophora sericea Nutt.); Herb. Raf. 38. 1833, nom. (Sophora sericea Nutt.).

Central United States.

VEXILLARIA Raf. Am. Monthly Mag. Crit. Rev. 2:268. 1818, nom.; Jour. Phys. Chim. Hist. Nat. 89:261. 1819, nom.; Act. Soc. Linn. Bordeaux 6:265. 1834, nom., nota=\*Vexillaria Eaton, Man. 83. 1817=Clitoria Linn.

\*mariana Eaton, Man. 83. 1817; Raf. ex Jacks\*. Ind. Kew. 2:1193. 1895 (Clitoria mariana Linn.). North America.

VIBEXIA Raf. ex Jacks\*. Ind. Kew. 2:1193. 1895, sphalm.= Vexibia Raf.=Sophora Linn.

sericea Raf. ex Jacks\*. l.c.=Vexibia sericea Raf.=Sophora sericea Nutt. Western United States.

VICIA Linn. bivonea Raf. Précis Découv. Somiol. 37. 1814, descr., non. nov. Vicia leucantha Bivona; Jour. Bot. (Desv.) 4:269. 1814, descr. (Vicia leucantha Bivona); Specch. Sci. 2:8. 1814, nom., nota, nom. nov. Vicia parviflora Bivona; Chloris Aetn. 4. 1815, nom. Sicily. craccoides Raf. Am. Monthly Mag. Crit. Rev. 4:194, 1819

(craceoides), nom. nov. Vicia cracca sensu Pursh; Jour. Phys. Chim. Hist. Nat. 89:260. 1819, nom. (Vicia cracca sensu Pursh); Med. Fl. 2:113. 1830, nom. North America

Vicia cracca Linn.

faba Linn.; Raf. Med. Fl. 2:112. 1830. Europe.

var. equina Raf. 1.c., descr.
media Raf. 1.c., descr.
megasperma Raf. 1.c., descr.
nigra Raf. 1.c., descr.
obtusifolia Raf. 1.c., descr. odoratissima Raf. 1.c., descr. racemosa Raf. 1.c., descr. rubra Raf. 1.c., descr. turgida Raf. 1.c., descr.

leptophylla Raf. Car. Nuov. Gen. Sp. Sicil. 71. 1810, descr.; Stat. Gen. Sicil. 28. 1810, nom.; Chloris Aetn. 5. 1815, nom.;

Aut. Bot. 10. 1840, nom. (leptophyla). Sicily.

\*mitchilla Raf. ex Eaton Man. 81. 1817, descr., sphalm,—seq. mitchelli Raf. Précis Découv. Somiol. 37. 1814, descr.; Jour. Bot. (Desv.) 4:269. 1814, descr. (michelli): Am. Monthly Mag. Crit. Rev. 1:429. 1817, nom.; op. cit. 2:268. 1818, nom. (Pisum maritimum sensu Pursh). New York=Vicia hirsuta (Linn.) Koch.

\*parviflora Bivona ex Raf. Chloris Aetn. 4. 1813, nom., sub

Vicia bivonea Raf. Sicily.

spuria Raf. Car. Nuov. Gen. Sp. Sicil. 72. 1810, descr.; Stat. Gen. Sicil. 28. 1810, nom.; Chloris Aetn. 4. 1815, nom. Sicily.

\*triflora Raf. Herb. Raf. 38. 1833, nom. Upper Missouri

(Mandan country) = Dakota.

VIRGILIA Lam.

\*alba Raf. Kentucky Gaz. 1822,19 fide Raf. Cincinnati Lit. Gaz. 1:60. 1824, nom. Kentucky=Cladrastis lutea (Michx. f.) K. Koch.

\*kentukensis Raf. Neogen. 1. 1825, nom., in syn.; New F1. N. Am. 3:83, 84. 1836 [1838], nom., nota [Virgilia kentukea Dum. Cours.]. Kentucky=Cladrastis lutea (Michx. f.) K. Koch.

XAMACRISTA Raf. Sylva Tellur. 127. 1838, descr. = Chamaecrista Moench (1794) = Cassia Linn.

triflora Raf. 1.c., nom. (Cassia chamaecrista Linn.). North America.

19 The Kentucky Gazette reference has not been seen, but Rafinesque states, Cincinnati Lit. Gaz. 1:60. 1824, that he used this binomial in the former periodical in 1822; whether or not he actually described the species there cannot be determined as I have seen no complete copy of the volume of the Kentucky Gazette for 1822. It is suspected that this binomial may have appeared in Rafinesque's "The cosmonist VI," in the Kentucky Gazette for March 7, 1822. No copy of this number has been located. See Fitzpatrick, T. J. Rafinesque, 123, 1911. XYPHANTHUS Raf. Fl. Ludovic. 103. 1817, descr.=Erythrina Linn.

hederifolius Raf. 1.c., descr. (Erythrina Rob. Voy. Louis. 3:503. 1807). Louisiana=Erythrina herbacea Linn.

\*XYPHERUS Raf. Jour. Phys. Chim. Hist. Nat. 89:260. 1819, nom. nov. Amphicarpa Ell. (1818) = Amphicarpa Ell., 1818, nom. conserv. (Falcata J. F. Gmel., 1791; Savia Raf., 1808).

†ZAGA Raf. Fl. Tellur. 1:16. 1836 [1837], nom.; op. cit. 2:33. 1836 [1837], descr.=Adenanthera Linn.

latifolia Raf. l.c., descr. (Zaga Rumph. [Corallaria parvifolia Rumph. Herb. Amb. 3:173. t. 109. 1743]). Moluccas = Adenanthera pavonina Linn.; see Merrill, Interpret. Rumph. Herb. Amb. 252. 1917.

parvifolia Raf. 1.c., descr. (Zaga Rumph. [Corallaria parvifolia Rumph. 1.c.]). Moluccas=Adenanthera pavonina Linn. ZANTHYRSIS Raf. New Fl. N. Am. 3:84. 1836 [1838],

descr.=Sophora Linn.

paniculata Raf. 1.c., descr.; Aut. Bot. 78. 1840, nom. Florida,

Cuba=Sophora tomentosa Linn. ZIGMALOBA Raf. Sylva Tellur. 120. 1838, descr.=Acacia

Willd. (1805).

sulcata Raf. 1.c., nom. (Acacia sulcata R. Br.). Australia.

### GERANIACEAE

GERANIUM Linn.

lenticulum Raf. New Fl. N. Am. 2:34. 1836 [1837], descr. Tennessee, Kentucky.

ludovicianum Raf. Fl. Ludovic. 89. 1817, descr. (Geranium

Rob. Voy. Louis. 3:477. 1807). Louisiana.

maculatum Linn.; Raf. Med. Fl. 1:217. 1828, descr., iter. Man. Med. Bot. 217. 1841. Eastern United States.

var. albiflorum Raf. Il.cc., nom. diphyllum Raf. Il.cc., nom. humile Raf. Il.cc., nom. macrophyllum Raf. II.cc., nom. viride Raf. 11.cc., nom.

†pedatum Raf. Herb. Raf. 60. 1833, nom.; New Fl. N. Am. 2:34. 1836 [1837], descr. Kentucky, Illinois.

\*tenessicum Raf. Herb. Raf. 60. 1833, nom. Tennessee.

# **OXALIDACEAE**

OXALIS Linn.

acetosella Linn. Europe, North America.
var. cespitosa Raf. Med. Fl. 2:47. 1830, descr.; Casket
1832:282. 1832, descr.; Sat. Eve. Post 11(566):
[4]. 1832, descr.

minor Raf. Il.cc., descr. Canada, New England, New York.

montana Raf. Il.cc., descr. Catskill and Alleghany Mountains.

nutans Raf. 11.cc., descr.

\*biflora Raf. Am. Jour. Sci. 1:82. 1818, nom. Philadelphia. cespitosa Raf. New Fl. N. Am. 2:27. 1836 [1837], descr. Western Kentucky and Tennessee.

\*cespitula Raf. Herb. Raf. 61. 1833, nom. Kentucky or Illi-

nois=praec.?

glauca Raf. ex DC. Prodr. 1:692. 1824, nom. in syn.=O. florida Salisb.

\*microphylla Raf. op. cit. 70, nom. Long Island, New Jersey, Chesapeake Bay.

montana Raf. Am. Monthly Mag. Crit. Rev. 2:266. 1818, nom. (Oxalis acetosella sensu Pursh); Ann. Nat. Ann. Synop. 12. 1820, descr. Catskill Mountains=O. acetosella

\*pumila Raf. Herb. Raf. 68. 1833, nom. Alleghany Mountains. †rupestris Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom.; Herb. Raf. 61. 1833, nom.; New Fl. N. Am. 2:26. 1836 [1837], descr. Cliffs along the Kentucky

sanguinolaria Raf. Fl. Ludovic. 89. 1817, descr. (Surelle 1 Rob. Voy. Louis. 3:477. 1807); Med. Fl. 2:47. 1830, nom., nota; Casket 1832:282. 1832, nom., nota; Sat. Eve. Post 11(580):[4] 1832, nom., nota. Louisiana=Oxalis corniculata Linn.

# LINACEAE

LINUM Linn. \*berenderi Raf. Fl. Tellur. 3:33. 1836 [1837], nom. sub Mesynium texense Raf., sphalm.=L. berendieri [berlandieri] Hook. Texas. cuspidatum Raf. New Fl. N. Am. 4:66. 1836 [1838], nom.

cuspidatum Raf. New Fl. N. Am. 4:66. 1836 [1838], nom. alt. Nezera cuspidata Raf. Texas.
imbricatum Raf. l.c., nom. alt. Nezera imbricata Raf. Texas.
refractum Raf. op. cit. 64, descr. "Origon or Canada."
rubrum Raf. Car. Nuov. Gen. Sp. Sicil. 74. 1810, descr.; Stat.
Gen. Sicil. 28. 1810, nom. Sicily=Linum decumbens Desf.
Fl. Atl. 1:278. t. 79. 1798.
virginicum Linn. Eastern North America.

var. foliosum Raf. New Fl. N. Am. 4:64. 1836 [1838], nom.

oppositifolium Raf. 1.c., nom.

pauciflorum Raf. I.c., nom.

pauciflorum Raf. I.c., nom.

MESYNIUM Raf. Fl. Tellur. 3:33. 1836 [1837], descr.=Cartholinum Reichb. (1837)=Linum Linn.

africanum Raf. I.c., nom. (Linum monogynum Forst. f.). New

Zealand.

chilense Raf. l.c., nom. (Linum macraei Benth.). Chile.
mexicanum Raf. l.c., descr. (Linum mexicanum H.B.K.;
Lindl. Bot. Reg. 16: t. 1326. 1830). Mexico.

texense Raf. 1.c., descr. (Linum berenderi [berendieri, Hook., H. berlandieri] Hook. Bot. Mag. 63: t. 3480. 1836). Texas. NEZERA Raf. New Fl. N. Am. 4:64. 1836 [1838], descr.; Good

Book 46. 1840, nom.=Cartholinum Reichb. (1837)=Linum Linn. albiflora Raf. New Fl. op. cit. 65, descr. Georgia and Carolina.

carnea Raf. 1.c., descr. Florida.

cuspidata Raf. op. cit. 66, descr. Texas.
imbricata Raf. l.c., descr. Texas.
NUMISAUREUM Raf. Fl. Tellur. 3:32. 1836 [1837], descr.=
Reinward Raf. 10. (1822).

acuminatum Raf. 1.c., descr. (Linum tetragynum Colebr.).

Nepal=Reinwardtia tetragyna (Colebr.) Planch.

petiolatum Raf. l.c., descr. (Linum trigynum Roxb.; Sm. Exot. Bot. 1: t. 17. 1804-5; Lodd. Bot. Cab. 12: t. 1193. 1826). India=Reinwardtia trigyna (Roxb.) Planch.

repens Raf. 1.c., nom. Hab.?

### ERYTHROXYLACEAE

SETHIA H.B.K.; Raf. Sylva Tellur. 149. 1838, descr.=Erythroxylum P. Browne (1756).

\*indica Raf. 1.c., nom. (Erythroxylum monogynum Roxb.). India.

# ZYGOPHYLLACEAE

TRIBULUS Linn.

\*dimidiatus Raf. Aut. Bot. 176. 1840, descr. (Tribulus trijugatus Nutt.). Carolina, Florida=Kallstroemia maxima (Linn.) Torr. & Gray.

### RUTACEAE

CITRUS Linn.

aurantium Linn. var. acida-spinosa Raf. Fl. Ludovic. 89. 1817, nom., nota (Orangers epineux Rob. Voy. Louis. 3: 474, 1807). Louisiana.

bergamota Raf. Sylva Tellur. 141. 1838, descr. "bergamot." cedrata Raf. 1.c., descr. "citron" = Citrus medica Linn.

var. inermis Raf. 1.c., nom. italica Raf. 1.c., nom.

melarosa Raf. I.c., nom.

syriaca Raf. 1.c., nom. combara Raf. op. cit. 142, descr. India; "combara" in India. costata Raf. 1.c., descr. India; "kalamba" or "kolombok" in India.

fusiformis Raf. 1.c., descr. "lemon." var. challi Raf. 1.c., nom.

parva Raf. l.c., nom.

peretta Raf. I.c., nom. gongra Raf. I.c., descr.; "gongra" in Bengal. granulata Raf. op. cit. 143, descr. India; "granular lemon." heterophyla Raf. op. cit. 141. descr. Tartary; "Turkish "Turkish

karna Raf. op. cit. 142, descr.; "karna" in India.

\*lima Raf. op. cit. 143. descr.="lime"=Citrus lima Macf. (1830) = Citrus aurantifolia (Christm.) Swingle.

var. costata Raf. l.c., nom. cucurbita Raf. I.c., nom. longifolia Raf. 1.c., nom. magna Raf. l.c., nom. mamillaris Raf. l.c., nom. palustris Raf. l.c., nom. undulata Raf. 1.c., nom.

myrtifolia Raf. op. cit. 141, descr. China; "myrtle orange." obovata Raf. op. cit. 142, descr.; "sweet lemon." rotundifolia Raf. op. cit. 141, descr.; "poncire."

var. undulata Raf. 1.c., nom. violacea Raf. 1.c., nom.

salicifolia Raf. l.c., descr.

CLADERIA Raf. Sylva Tellur. 12. 1838, descr.=Murraya [Murraea] Koenig (1771), nom. conserv. (Camunium Adans., 1763; Chalcas Linn., 1767; Bergera Koenig, 1771). parviflora Raf. 1.c., descr. (Carabou Lam. Encycl. 1:612. [Kari-bepu Rheede, Hort. Malabar. 4:109. t. 53.

1785). [Kari-bepu Rheede, Hort. Mala 1683]. India=Murraya koenigii Spreng.

\*DIMEIUM Raf. Anal. Nat. Tabl. Univ. 174. 1815, nom. (Zanthoxylon sp.); Med. Fl. 2:114. 1830, descr.; Casket 1832:236. 1832, descr. (Zanthoxylum spinosum Sw.)= Zanthoxylum Linn.

#HERCULIUM Raf. Med. Fl. 2:114. 1830, descr. subgen.
Xanthoxylum "Linn." [J. F. Gmel.] (Types X. clava Raf.;
X. punctatum Raf.); Casket 1832:236. 1832, descr., subgen. vel gen.=Zanthoxylum Linn.

\*KAMPMANIA Raf. Med. Repos. II. 5:352. 1808, nom.; Jour.

Bot. (Paris) 2:170. 1809, nom.=Zanthoxylum Linn.

\*fraxinifolia Raf. 1l.cc., nom. (Zanthoxylum tricarpum Michx.). North America=Z. clava-herculis Linn.

KAMPMANNIA Raf. ex Jacks\*. Ind. Kew. 1:3. 1894=Kampmania Raf.=Zanthoxylum Linn.

fraxinifolia Raf. ex Jacks\*. 1.c. (Kampmania fraxinifolia Raf.). North America=Zanthoxylum clava-herculis Linn.

MALNEREGA Raf. Sylva Tellur. 143. 1838, descr. (Malnaregam Adans.)=Atalantia Correa (1805), nom. conserv. (Malnaregam Adans., 1763).

malabarica Raf. 1.c., descr. (Mal-Naregam Rheede, Hort. Malabar. 4:27. t. 12. 1673 [1683]. India=Atalantia monophylla (Linn.) Corr.

PONCIRUS Raf. Sylva Tellur. 143. 1838, descr. trifoliata Raf. 1.c., nom. (Citrus trifoliata Linn.). China. \*PSEUDETALON Raf. Fl. Ludovic. 10. 1817, nom., sphalm.= seq.

\*glandulosum Raf. 1.c., nom.=seq.

PSEUDOPETALON Raf. Fl. Ludovic. 107. 1817, descr.; Med. Fl. 2:114. 1830, descr.; Casket 1832:236. 1832, descr.; Sat. Eve. Post 11(363):[4]. 1832, descr.; New Fl. N. Am. 3:95. 1836 [1838], nom.=Zanthoxylum Linn.

glandulosum Raf. Fl. Ludovic. 108. 1817, descr. (Zanthoxylum Rob. Voy. Louis. 3:507. 1807); Med. Fl., Casket, et Sat. Eve. Post Il.cc., nom.; Herb. Raf. 56. 1833, nom. Louisiana =Zanthoxylum clava-herculis Linn.

tricarpum Raf. ex Jacks\* Ind. Kew. 2:639. 1895 (Zanthoxylum tricarpum Michx.). North America=Zanthoxylum clava-herculis Linn.

PTELEA Linn.

TELEA Linn.

tomentosa Raf. Fl. Ludovic. 108. 1817, descr. (Ptelea Rob. Voy. Louis. 3:509, 1807); Herb. Raf. 56. 1833, nom.; New Fl. N. Am. 3:95. 1836 [1838], nom. Louisiana=Ptelea trifoliata Linn. var. mollis Torr. & Gray (1840) (P. trifoliata Linn. var. tomentosa Small, 1933; P. Wils. N. Am. Fl. 25:209. 1911 ut P. tomentosa Raf., cum syn.).

RUTA Linn.

fimbriata Raf. Am. Monthly Mag. Crit. Rev. 1:439. 1817, descr.; Fl. Ludovic. 169. 1817, nom. Sicily.

TENOREA Raf. Speech. Sci. 1:192. 1814, descr.; Précis Découv. Somiol. 1814 (p. 4 of cover), nom.; Jour. Bot. (Desv.) 4: 177 (err 277). 1814, nom.; Anal. Nat. Tabl. Univ. 174. 1815, nom.; Med. Fl. 2:114. 1830, nom.; Casket 1832:236. 1832, nom.; Sat. Eve. Post 11(563):[4], nom., 1832=? Zanthovylum Line. thoxylum Linn.

corymbosa Raf. op. cit. 193, descr. West Indies=Zanthoxy lum ? corymbosum DC., sp. dub.; see P. Wils. N. Am. Fl.

25:199. 1911.

\*THYLAX Raf. Med. Fl. 2:114. 1830, descr.; Casket 1832: 236. 1832, descr.=Zanthoxylum Linn.

\*fraxineum Raf. 11.cc., nom. (Zanthoxylum fraxineum Willd.). Eastern North America=Zanthoxylum americanum Mill. \*THYLAXUS Raf. Anal. Nat. Tabl. Univ. 174. 1815, nom.=

XANTHOXYLON Spreng. (1818) = Zanthoxylum Linn. \*acuminatum Raf. Med. Fl. 2:114. 1830, nom. [Zanthoxylum]

acuminatum Sw.]. Jamaica. \*catesbianum Raf. Med. Fl. 2:114. 1830, nom., nota (Zanthoxylum clava-herculis Linn., quoad hab. Carolina, Florida); Casket 1832:236. 1832, nom.=Zanthoxylum clavaherculis Linn.

\*clava Raf. Med. Fl. 1.c., nom. nov. [Zanthoxylum clava-herculis Linn.]; Casket 1832:236. 1832, nom., nota [Zanthoxylum clava-herculis Linn.]. Eastern North America=

Zanthoxylum clava-herculis Linn.

\*emarginatum Raf. Med. Fl. 1.c. nom. [Zanthoxylum emargi-

natum Sw.]. West Indies.

\*fraxineum Raf. op. cit. 113. f. 96, descr. [Zanthoxylum fraxineum Willd.]; Casket 1832:236. 1832, descr. Southeastern United States=Zanthoxylum americanum Mill.

\*glandulosum Raf. op. cit. 116, nom., nota [Pseudopetalon fraxineum Raf.]; Casket 1832:236. 1832, nom., nota (Pseudopetalon [glandulosum Raf.]). Louisiana=Zanthoxylum clava-herculis Linn.

\*punctatum Raf. op. cit. 114, nom. [Zanthoxylum punctatum Vahl]. West Indies=Fagara trifoliata Sw. fide Urban. \*spinosum Raf. 1.c., nom. [Zanthoxylum spinosum Sw.]. West

Indies.

\*tricarpum Raf. 1.c., nom. [Zanthoxylum tricarpum Michx.] Southeastern United States=Zanthoxylum clava-herculis

# SIMAROUBACEAE

\*AYLANTHUS Raf. Anal. Nat. Tabl. Univ. 174. 1815, nom. Sylva Tellur. 1:28. 1836 [1837], nom. = Ailanthus Desf. (1786), nom. conserv. (Pongelion Adans., 1763).

BRUCEA J. S. Mill. (1780).

\*dyssenterica Raf. First Cat. Bot. Gard. Transylv. Univ. 17.

1824, nom. = B. antidysenterica Lam. Tropical Asia, Malavsia

\*LUSSARIA Raf. Anal. Nat. Tabl. Univ. 174. 1815, nom.; [Lussa radja Rumph. Herb. Amb. 7:27, t. 15. 1755] = Brucea J. S. Mill (1780), nom. conserv. (Lussa Rumph., 1755;

O. Kuntze, 1891).

RAXAMARIS Raf. Fl. Tellur. 3:54. 1836 [1837], descr.=

Soulamea Lam. (1785).

parvifora Raf. op. cit. 55, descr. (Rex amaroris Rumph. Herb. Amb. 2:129. t. 41. 1741). Moluccas=Soulamea amara Lam.; see Merrill, Interpret. Rumph. Herb. Amb. 300. 1917.

#### MELIACEAE

AZEDARA Raf. Fl. Ludovic. 135. 1817, nom.=Melia Linn. speciosa Raf. l.c., nom. (Melia azedarach Linn.). Tropical Asia.

\*AZEDARACA Raf. Med. Fl. 2:199. 1830, nom., nota=Melia Linn.

\*amena Raf. 1.c., nom. (Melia azedarach Linn.). Tropical Asia.

MELIA Linn.

\*azedarac Raf. Med. Fl. 2:199. 1830, nom.=Melia azedarach Linn. India.

MIOPTRILA Raf. 20 Am. Man. Mulberry Trees 37. 1839, descr., p.p. = Cedrela P. Browne (1756) (Toona M. Roem., 1846). odorata Raf. 1.c., descr. China, p.p. (fruct.) = Cedrela sinensis Juss. (Toona sinensis M. Roem.).

# POLYGALACEAE

\*ANTHALLOGEA Raf. Act. Soc. Linn. Bordeaux 6:264. 1834, descr., iter. Merr. Proc. Am. Philos. Soc. 86:87. 1942, op. cit. 89, nom. (Type Polygala polygama Walt.) = seq.

20 The description of this genus and species was manifestly based on two entirely different plants, as to the fruits and the Chinese name hiang chun definitely Cedrela sinensis Juss. (Toona sinensis M. Roem.), as to the leaves and flowers possibly some species of Zanthoxylum Linn. of the Rutaceae. Rafinesque, as was often the case, had no specimens.

ANTHALOGEA Raf. New Fl. N. Am. 4:88. 1836 [1838], descr.=Polygala Linn.

polygama Raf. ex Jacks\*. Ind. Kew. 1:143. 1893 (Polygala polygama Walt.); Nieuwl. Am. Midl. Nat. 3:180. 1914. North America.

\*rubella Raf. ex Nieuwl. Am. Midl. Nat. 3:180. 1914, nom.

in syn.=praec.

†ASEMEIA Raf. Herb. Raf. 80. 1833, descr. (Polygala pubescens sensu Ell.); Act. Soc. Linn. Bordeaux 6:364. 1834, descr., iter. Merr. Proc. Am. Philos. Soc. 86:87. 1942, op. cit. 89, nom.; New Fl. N. Am. 4:88. 1836 [1838], descr.= Polygala Linn.

alba Raf. New F1. N. Am. 4:88. 1836 [1838], descr. Texas= ? P. alba Nutt.

†carnea Raf. Herb. Raf. 79. 1833, nom. (Polygala pubescens sensu Ell.); Act. Soc. Linn. Bordeaux 6:264. 1834, nom. (Polygala pubescens auct.), iter. Merr. Proc. Am. Philos. Soc. 86:87. 1942, op. cit. 89, nom.; New Fl. N. Am. 4: 88. 1836 [1838], descr. Southeastern United States=? Polygala grandiflora Walt. (Asemeia grandiflora Small). leptopsis Raf. New Fl. N. Am. 4:88. 1836 [1838], nom. alt. Asemeia alba Raf. Texas=? P. alba Nutt. trosea Raf. Herb. Raf. 79. 1833, nom. (Polygala pubescens

nom. (Polygala pubescens sensu Ell.); Act. Soc. Linn. Bordeaux 6:264. 1834, nom. (Polygala pubescens auct.), iter. Merr. Proc. Am. Philos. Soc. 86:87. 1942, op. cit. 89, nom.; New Fl. N. Am. 4:88. 1836 (1838), descr. (Polygala pubescens Muhl.; P. viridescens Walt.). Carolina and Florida=P. grandiflora Walt.

†CORYMBULA Raf. Act. Soc. Linn. Bordeaux 6:264. descr., iter. Merr. Proc. Am. Philos. Soc. 86:87. 1942, op. cit. 89, nom.; New Fl. N. Am. 4:88. 1836 [1838], descr.=

Polygala Linn.

\*IRIDISPERMA Raf. Act. Soc. Linn. Bordeaux 6:264. 1834, nom., iter. Merr. Proc. Am. Philos. Soc. 86:87. 1942, op. cit. 90, nota=Polygala Linn. (Type Polygala paucifolia Willd.).

\*LEPTROCHIA Raf. Act. Soc. Linn. Bordeaux 6:264. 1834, descr., iter. Merr. Proc. Am. Philos. Soc. 86:87. 1942, op.

cit. 90, nom.=Polygala Linn.

PILOSTACHYS Raf. ex Jacks\*. Ind. Kew. 2:526. 1894, nom.=

Pilostaxis Raf. = Polygala Linn.

hyemalis Raf. ex Jacks\*. l.c. = Pilostaxis hyemalis Raf. = Polygala hyemalis Raf. Florida, Georgia = seq. nana Raf. ex Jacks\*. l.c.=Pilostaxis nana Raf.=Polygala nana\_DC. Florida.

\*PILOSTAXIS Raf. New Fl. N. Am. 4:89, 111. 1836 [1838], nom.; op. cit. 87, descr. ut Plostaxis Raf. = Polygala Linn. \*hyemalis Raf. op. cit. 87, nom. alt. Polygala hyemalis Raf. Florida, Georgia=Polygala nana (Michx.) DC

\*nana Raf. l.c., nom. alt. Polygala nana Raf. Florida=Poly-

gala nana (Michx.) DC.

PLOSTAXIS Raf. New Fl. N. Am. 4:87. 1836 [1838], descr.= Polygala Linn. lutea Raf. ex Jacks\*. Ind. Kew. 2:568. 1894 (Polygala lutea

Linn.). Eastern North America.

POLYGALA Linn.

\*flava Raf. Life of Travels 26. 1836, nom. Italy.
\*heterophyla Raf. Herb. Raf. 53. 1833, nom. Hab.?
hyemalis Raf. New Fl. N. Am. 4:89. 1836 [1838], descr.

Florida, Georgia = P. nana (Michx.) DC.
jamesi Raf. Atl. Jour. 1:146. 1832, nom. (Polygala sp. Torr.
Ann. Lyc. Nat. Hist. N. Y. 2:168. 1827, descr.). Rocky Mountains or western plains.

lutea Linn. var. paucifolia Raf. New Fl. N. Am. 4:90. 1836 [1838], descr. North America=? P. nana (Michx.) DC.

missurica Raf. New Fl. N. Am. 4:89. 1836 [1838], descr.

\*\*Illinois, Missouri=P. cruciata Linn.

\*\*nana Raf. op. cit. 89, descr. Florida=Polygala nana (Michx.) DC. (1824).

\*\*paucifolia Willd.; Raf. Med. Fl. 2:63. f. 75. 1830, descr. Eastern North America.

var. albiflora Raf. op. cit. 64, nom.

apogonia Raf. 1.c., nom. subnud. (Polygala uniflora Michx.?).

heterantha Raf. 1.c., nom. subnud.

procumbens Raf. l.c., nom. quadriflora Raf. l.c., nom. rugosa Raf. New Fl. N. Am. 4:89. 1836 [1838], descr. Lake Michigan=? P. polygama Walt.

POLYGALA (continued). spathulata Raf. Med. Repos. II. 5:353. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom.; Am. Monthly Mag. Crit.

Rev. 1:359. 1817, nom. Pennsylvania.

PSYCHANTHUS Raf. Specch. Sci. 1:116. 1814, descr.; New Fl. N. Am. 4:87. 1836 [1838], nom.; Aut. Bot. 6. 1840, nom. (Polygala myrtifolia Linn.)=Psychanthus Spach (1839)= Polygala Linn.

\*myrtifolius Raf. Aut. Bot. 6. 1840, nom. (Polygala myrti-

folia Linn.). South Africa.

\*PYLOSTACHYA Raf. Act. Soc. Linn. Bordeaux 6:264. 1834, descr., iter. Merr. Proc. Am. Philos. Soc. 86:87. 1942, op. cit. 90, nom., nota (Type Polygala lutea Linn.) = Polygala Linn.

\*SENEGARIA Raf. Act. Soc. Linn. Bordeaux 6:264. 1834. descr., iter. Merr. Proc. Am. Philos. Soc. 86:87. 1942, op. cit. 90, nom. [Polygala senega Linn.] = Polygala Linn.

SEXILIA Raf. New Fl. N. Am. 4:87. 1836 [1838], descr.= Polygala\_Linn.

missurica Raf. ex Jacks\*. Ind. Kew. 2:894. 1895 (Polygala missurica Raf.). Missouri=Polygala cruciata Linn. verticillata Raf. ex Jacks\*. l.c. (Polygala verticillata Linn.).

Eastern North America.

TRICLISPERMA Raf. Speech. Sci. 1:117. 1814, descr.; Princ. RICLISPERMA Raf. Speech. Sci. 1:117. 1814, descr.; Princ. Somiol. 26. 1814, nom.; Anal. Nat. Tabl. Univ. 187. 1815, nom.; Am. Monthly Mag. Crit. Rev. 2:268. 1818, nom., nota (Polygala paucifolia Willd); op. cit. 4:194. 1819, nom., nota; Jour. Phys. Chim. Hist. Nat. 89:258. 1819, nom., nota; New Fl. N. Am. 4:87. 1836 [1838], nom.; Good Book 40. 1840, nom.=Polygala Linn. grandiflora Raf. Speech. Sci. l.c., descr. (Polygala paucifolia Willd.); Med. Fl. 2:63. 1830, nom., nota. in syn. sub Polygala paucifolia Willd.). Eastern United States=Polygala paucifolia Willd.

OPOXUS Raf. New Fl. N. Am. 4:88. 1836 [1838]. gen. vel.

ZOROXUS Raf. New Fl. N. Am. 4:88. 1836 [1838], gen. vel subgen., nom. nov. Chamaebuxus Tourn.=Polygala Linn.

### DICHAPETALACEAE

\*LEUCIPUS Raf. Princ. Somiol. 25. 1814, nom. nov. Leucosia Thouars; Fl. Tellur. 1:83. 1836 [1837], nom. (Leucosia Thouars) = Dichapetalum Thouars (1806).

### **EUPHORBIACEAE**

ACALYPHA Linn.

brevipes Raf. New Fl. N. Am. 1:44. 1836, descr. New Jersey to Kentucky and Alabama=A. virginica Linn.

var. linearis Raf. 1.c., descr.

pubescens Raf. i.c., descr. (Acalypha virginica sensu Michx.).

crenulata Raf. l.c., descr., nom. nov. provis. A. virginica Linn. New England to Carolina = Acalypha virginica Linn. digyneia Fl. Ludovic. 112. 1817, descr. (Acalyphe 2, Rob. Voy. Louis. 3:516. 1807); New Fl. N. Am. 1:45. 1836,

descr. Louisiana. divaricata Raf. New Fl. N. Am. 1:44. 1836, descr. Vir-

ginia, Kentucky.

echinata Raf. New Fl. N. Am. 1:45. 1836, nom. nov. provis. Acalypha caroliniana Walt. Carolina, Florida=Acalypha virginica Linn.

fruticulosa Raf. Fl. Ludovic. 112. 1817, descr. (Acalypha monoique Rob. Voy. Louis. 3:516. 1807); New Fl. N. Am.

1:46. 1836, descr. Louisiana.

jamaicensis Raf. op. cit. 46, descr. (Acalypha virginica Linn., pro parte). Jamaica, ? Florida. rhomboidea Raf. op. cit. 45, descr. Pennsylvania to Ohio=

A. virginica Linn.; see Weatherby, Rhodora 42:96. 1940. \*urticifolia Raf. Herb. Raf. 67. 1833, nom.; New Fl. N. Am.

L.c., descr., non Poir. Western Kentucky and Tennessee.

zeylanica Raf. New Fl. N. Am. 1:46. 1836, nom. [Acalypha virginica Linn., pro parte, quoad Fl. Zeyl. no. 342, Plukenet, Phytogr. 2:248. t. 99. f. 4. 1720, sphalm. Linn. "Burm. zeyl. 248. t. 99. f. 4."]. Ceylon=Acalypha lanceolata Willd.

ADENORIMA Raf. Fl. Tellur. 4:112. 1836 [1838], descr.=

Euphorbia Linn.

punicea Raf. 1.c., descr. (Euphorbia punicea Sw.; Ker-Gawl. Bot. Reg. 3: t. 190. 1817). West Indies.

AGALOMA Raf. Fl. Tellur. 4:116. 1836 [1838], descr.=Tithymalopsis Klotzsch & Garcke (1859) = Euphorbia Linn.

angustifolia Raf. ex Jacks\*. Ind. Kew. 1:53. 1893 (Euphorbia angustifolia Sweet.). Europe.

\*ciliata Raf. Aut. Bot. 94. 1840. Alabama to Kentucky.

var. floridana Raf. 1.c., descr. Florida. monanthes Raf. op. cit. 95, descr. Alabama.

†corollata Raf. l.c., nom. (Euphorbia corollata Linn.). Canada to Louisiana. (Tithymalopsis corollata Klotzsch & Garcke).

var. angustifolia Raf. l.c., nom. cuneifolia Raf. l.c., nom. nudiflora Raf. l.c., nom. pauciflora Raf. l.c., nom. uniflora Raf. 1.c., nom.

graminifolia Raf. ex Jacks\*. Ind. Kew. 1:53. 1893 (Euphorbia graminifolia Michx.). North America.
\*linearis Raf. Aut. Bot. 94. 1840, descr. Alabama, Tennessee.

\*longifolia Raf. l.c., descr. (Euphorbia graminifolia Michx.?). Kentucky, Carolina.

var. linearis Raf. l.c., nom. major Raf. I.c., nom.

\*polyscadia Raf. 1.c., descr. Alleghany Mountains.
\*purpurea Raf. op. cit. 94, descr. Alleghany Mountains of Pennsylvania=Euphorbia purpurea (Raf.) Fernald (E. nemoralis Darlington; E. darlingtonii A. Gray).

\*retusa Raf. op. cit. 95, descr. Alleghany Mountains. var. multiflora Raf. l.c., nom.

pauciflora Raf. l.c., nom.

\*tenuifolia Raf. l.c., descr. Florida.

AKLEMA Raf. Fl. Tellur. 4:114. 1836 [1838], descr.=Euphorbia Linn.

nudiflora Raf. 1.c., descr. (Euphorbia nudiflora Jacq. Ic. Pl.

Rar. 3: t. 479. 1786-93). Jamaica.

ALDINIA Raf. Aut. Bot. 50. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:93. 1921, nom., non Scop. (1777) = Croton Linn.

glechomoides Raf. 1.c., descr.; Pennell, 1.c., nom. Cuba=? Croton betulinus Vahl.

ALLOBIA Raf. Fl. Tellur. 4:116. 1836 [1838], descr.=Euphorbia Linn.

portlandica Raf. 1.c., nom. (Euphorbia portlandica Linn.). Europe.

ALLOSANDRA Raf. Aut. Bot. 51. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:93. 1921, nom.=Tragia Linn. \*lanceolata Raf. l.c., descr. (Tragia innocua Walt.). Ala-

bama, Florida=Tragia urens Linn. \*linearis Raf. 1.c., nom. sub Allosandra verbenifolia Raf. An

Tragia linearifolia Ell. ?

\*macrocarpa Raf. op. cit. 52, descr. (Tragia macrocarpa Willd.). Kentucky, Tennessee. verbenifolia Raf. op. cit. 51, descr. (Tragia urens Linn., var.; Pennell, 1.c., nom. Florida=Tragia urens Linn.

#ALSKEBRA Raf. Fl. Tellur. 4:112. 1836 [1838], descr., sub-

gen. Euphorbia Linn. #ANACANTHA Raf. Fl. Tellur. 4:112. 1836 [1838], nom., sub-

gen. Dactylanthes Haw.=Euphorbia Linn.

ANISEPTA Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom.; Neogen 1. 1825, nom. alt. Heptallon Raf. = Croton Linn.

graveolens Raf. First Cat. 1.c., nom. Kentucky.

APLARINA Raf. New Fl. N. Am. 4:99. 1836 [1838], descr.;
Aut. Bot. 97, 138. 1840, nom. sub Xamesike Raf.=Euphor-

microphyla Raf. New Fl. N. Am. 4:100. 1836 [1838], descr. Louisiana, Texas=Xamesike microphyla Raf. prostrata Raf. op. cit. 99, descr. Pennsylvania=Xamesike

prostrata Raf.

BANALIA Raf. Aut. Bot. 50. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:93. 1921, nom. Ex descr.=Croton Linn. muricata Raf. 1.c., descr.; Pennell, 1.c., nom. Florida.

BIVONEA Raf. Speech. Sci. 1:156. 1814, descr.; Am. Monthly Mag. Crit. Rev. 4:195. 1819, nom. (Jatropha stimulosa Michx.); Jour. Phys. Chim. Hist. Nat. 89:260. 1819, nom.; Neogen. 3. 1825, nom. in syn. sub Mesanandria Raf. = Jatropha Linn. (Cnidoscolus Pohl, 1827).

stimulosa Raf. Specch. Sci. 1:156. 1814, descr. (Jatropha stimulosa Michx.; Jatropha urens sensu Walt.); Am. Monthly Mag. Crit. Rev. 2:268. 1818, nom. (Jatropha stimulosa Michx.). Virginia to Florida and Louisiana=

Jatropha urens Linn. var. stimulosa (Michx.) Muell.-Arg. \*BIVONIA Raf. Fl. Tellur. 1:16. 1836 [1838], nom., non Spreng., 1821=praec.

CASCARILLA Adans.; Raf. Sylva Tellur. 62. 1838, descr.= Croton Linn.

aromatica Raf. 1.c., nom. (Croton aromaticus Linn.). India. discolor Raf. 1.c., nom. (Croton discolor Willd.). Domingo.

linearis Raf. 1.c., nom. (Croton linearis Jacq.). West Indies. officinalis Raf. I.c., nom. (Croton cascarilla Linn.). West

\*CHAMYSYKE Raf. New Fl. N. Am. 4:44. 1836 [1838], nom. sub Plagidia rufa Raf.=Chamaesyce S. F. Gray (1821)= Euphorbia Linn.

CHROZOPHORA Neck. (1790), nom. conserv. (Tournesol Adans., 1763; Tournesolia Scop., 1777).

\*tinctoria Raf. Chloris Aetn. 4. 1815, nom. (Croton tinctorius Linn.). Sicily=Chrozophora tinctoria (Linn.) A. Juss.

\*CODEBO Raf. Sylva Tellur. 64. 1838, nom. sub Chrozophyla Raf.=Codiaeum Juss. (1824), nom. conserv. (Phyllaurea 1790).

\*CODIEUM Raf. Sylva Tellur. 64. 1838, nom. sub Chrozophyla Raf.=Codiaeum Juss. (1824), nom. conserv. (Phyllaurea Lour., 1790).

\*CONAMIA Raf. Sylva Tellur. 92. 1838, descr. (Conami Aubl.)=Phyllanthus Linn.

\*brasiliensis Raf. 1.c., descr. (Conami brasiliensis Aubl.).

Guiana, Brazil=Phyllanthus conami Sw. CROZOPHORA Juss. (1824)=Chrozophora Neck. (1790).

\*plicata Raf. Sylva Tellur. 66. 1838, nom.; Aut. Bot. 51. 1840, nom. (Croton plicatus Vahl). Mediterranean region to India=Chrozophora plicata (Vahl) Juss.

\*tinctoria Raf. 11.cc., nom. (Croton tinctorius Linn.). Mediterranean region to India=Chrozophora tinctoria (Linn.) Tuss

CROZOPHYLA Raf. Sylva Tellur. 64. 1838, descr. = Codiaeum Juss. (1824), nom. conserv. (Phyllaurea Lour., 1790).

angustifolia Raf. l.c., descr. [Indo-Malaysia] = Codiaeum variegatum (Linn.) Blume, f. taeniosum Muell.-Arg. elliptica Raf. l.c., descr. [Tropical Asia] = Codiaeum variegatum (Linn.) Blume.

picta Raf. 1.c., descr. (Codiaeum pictum Hook. Bot. Mag. 58: t. 3051. 1831; Croton pictus Lodd. Bot. Cab. 8: t. 870. 1824). India=Codiaeum variegatum (Linn.) Blume.

variegata Raf. l.c., descr. (Croton variegatum Linn.). India = Codiaeum variegatum (Linn.) Blume.

CUPAMENIS Raf. Sylva Tellur. 67. 1838, descr.=Acalypha Linn.

chamedrifolia Raf. ex Jacks\*. Ind. Kew. 1:667. 1893 (Croton chamaedryfolius Lam.). West Indies=Acalypha chamaedrifolia (Lam.) Muell.-Arg.

indica Raf. ex Jacks\*. 1.c. (Acalypha indica Linn.). India. reptans Raf. ex Jacks\*. 1.c. (Acalypha reptans Sw.). West Indies=A. chamaedrifolia (Lam.) Muell.-Arg.

CYATHOPHORA Raf. Fl. Tellur. 4:117. 1836 [1838], descr.= Euphorbia Linn.

ciliata Raf. 1.c., descr. (Euphorbia heterophylla sensu Jacq. [Ic. Pl. Rar. 3: t. 480. 1786-93]; E. cyathophora sensu Ker-Gawl. Bot. Reg. 9: t. 765. 1824) = E. heterophylla Linn.

heterophyla Raf. 1.c., descr. (Euphorbia heterophylla Linn.).
South America=E. heterophylla Linn.

picta Raf. 1.c., descr. (Euphorbia cyathophora sensu Scop. Del. Fl. Faun. Insub. 3: t. 3. 1788); Aut. Bot. 96. 1840, nom. Florida, and cultivated in gardens=E. heterophylla Linn.

DACTYLANTHES Haw. (1812) = Euphorbia Linn.

medusa Raf. ex Jacks\*. Ind. Kew. 1:708. 1893 (Euphorbia medusae Thunb.). S. Africa.

DECARINIUM Raf. Neogen. 1. 1825, descr.; Sylva Tellur. 65. 1838, descr.=Croton Linn.

glandulosum Raf. Sylva Tellur. 1.c., nom. (Croton glandulosus Linn.); Aut. Bot. 48. 1840, descr. (Croton glandulosus Linn.). Carolina and Florida.

latifolium Raf. Aut. Bot. 49. 1840, descr. (Croton glandulosus sensu Nutt.). Cuba, Arkansas=Croton glandulosus Linn.

DEMATRA Raf. Aut. Bot. 91, nom., 96, descr. 1840; Pennell, Bull. Torr. Bot. Club 48:94. 1921, nom. = Euphorbia Linn. sericea Raf. op. cit. 96, descr. (Euphorbia villosa Sieber in herb., non Waldst. & Kit.); Pennell 1.c., nom. Palestine.

**DESMONEMA** Raf. Atl. Jour. 1:177. 1833, descr.: Herb. Raf. 23. 1833, descr.; Fl. Tellur. 4:113. 1836 [1838], descr.= Euphorbia Linn.

hirta Raf. Atl. Jour. 1:178. 1833, descr.; Herb. Raf. 24. 1833, descr.; Fl. Tellur. l.c., descr.; Aut. Bot. 96. 1840, nom. Western Kentucky to Texas.

DISCOPLIS Raf. New Fl. N. Am. 4:9. 1836 [1838], descr.; Good Book 46. 1840, nom. Ex descr.=Mercurialis Linn.

serrata Raf. op. cit. 10, descr.; Aut. Bot. 16. 1840, nom. Southern Florida and Cuba = Mercurialis annua Linn.

DITRISYNIA Raf. Sylva Tellur. 64. 1838, descr.=Ditrysinia

Raf. = Sebastiania Spreng. (1821). ligustrina Raf. l.c., descr. = Ditrysinia ligustrina Raf. = Sebastiania ligustrina (Michx.) Muell.-Arg.

**DITRYSINIA** Raf. Neogen. 2. 1825, descr. = Sebastiania Spreng. (1821).

ligustrina Raf. 1.c., descr. (Stillingia ligustrina Michx.). Southeastern United States = Sebastiania ligustrina (Michx.) Muell.-Arg.

sylvatica Raf. ex Jacks\*. Ind. Kew. 1:783. 1894 (Stillingia sylvatica Linn.). Southeastern United States=Stillingia sylvatica Linn.

DITRITRA Raf. Sylva Tellur. 115. 1818, descr.; Aut. Bot. 138. 1840, nom. sub Endosila Raf. = Euphorbia Linn.

hirta Raf. Sylva Tellur. 1.c., descr. (Euphorbia hirta sensu

Sw.). Jamaica. obliqua Raf. 1.c., descr. (Euphorbia hypericifolia sensu Sw.). Tamaica.

rotundifolia Raf. 1.c., descr. (Euphorbia chamaesyce Sw.).

Jamaica.

DREPADENIUM Raf. Neogen. 2. 1825, dcscr.; Sylva Tellur. 64. 1838, descr.=Croton Linn.

\*argyranthes Raf. Aut. Bot. 48. 1840, descr. (Croton argyranthemus Michx.). Florida, Cuba.

dichotomum Raf. Sylva Tellur. 65. 1838, nom. (Croton maritimus Walt. var. monantha [monanthogynus Pursh]). Southeastern United States=Croton punctatus Jacq.

†maritimum Raf. 1.c., nom. (Croton maritimus Walt.); Bot. 48. 1840, descr., nota. Carolina to Florida=Croton punctatus Jacq.

EMBLICA Gaertn.=Phyllanthus Linn.

annua Raf. Sylva Tellur. 91. 1838, nom. (Phyllanthus bacciformis Linn.). India=Agyneia bacciformis (Linn.) A. Juss. arborea Raf. 1.c., nom. (Phyllanthus emblica Linn.). India.

\*racemosa Raf. I.c., nom. [Phyllanthus racemosus Linn. f.]. India=Emblica racemosa Spreng. (1826)=Agyneia bacciformis (Linn.) A. Juss.

ENDOISILA Raf. Sylva Tellur. 114. 1838, descr.; Aut. Bot. 138. 1840, nom. = Euphorbia Linn.

myrsinites Raf. Sylva Tellur. 114. 1838, descr. ("Euphorbia do Sw.," sphalm., prob. E. myrtifolia Linn.). West Indies.

EPISTEIRA Raf. Sylva Tellur. 20. 1838, descr.=Glochidion J. R. & G. Forst. (1776). coccinea Raf. l.c., descr. (Agyneia coccinea Buch.-Ham.).

Burma=Glochidion coccineum (Buch.-Ham.) Muell.-Arg. ESULA Haw. = Euphorbia Linn.

\*adscendens Raf. Herb. Raf. 62. 1833, nom. Kentucky or Illinois.

\*diversifolia Raf. Fl. Tellur. 4:116. 1836 [1838], nom. (Euphorbia diversifolia Poir.). Mediterranean region. \*esula Raf. l.c., nom. (Euphorbia esula Linn.). Europe.

\*lucida Raf. 1.c., nom. (Euphorbia lucida Waldst. & Kit.). Europe.

\*retusa Raf. 1.c., nom. (Euphorbia retusa Forsk.). Egypt (E. cornuta Pers.).

#ETORADIS Raf. Aut. Bot. 52. 1840, descr., sub Allosandra macrocarpa Raf. subgen. provis. Allosandra Raf. = Tragia Linn.

EUPHORBIA Linn.

\*coccinea Raf. Atl. Jour. 1:182. 1833, nom. alt. Pleuradena coccinea Raf. Mexico=Euphorbia pulcherrima Willd. corollata Linn. Eastern North America

var. linearis Raf. Med. Fl. 1:183. 1828, descr., iter. Man.

Med. Bot. 183. 1841. pauciflora Raf. op. cit. 184, descr. pubescens Raf. op. cit. 183, descr.

rosea Raf. op. cit. 184, descr.

†echinocarpa Sieber ex Raf. Aut. Bot. 93. 1840, nom. sub Keraselma echinocarpa Raf.; Boiss. in DC. Prodr. 15(2): 119. 1862, nom. in syn. Greece=E. cybirensis Boiss. var. dehiscens Boiss.

\*fuscata Raf. Fl. Tellur. 4:116. 1836 [1838], nom. nov. E. pithyusa Linn. Mediterranean region.

EUPHORBIA (continued).

hypericifolia Linn. Eastern North America. var. maculata Raf. Med. Fl. 1:183. 1828, descr., iter. Man. Med. Bot. 183. 1841.

multiflora Raf. Il.cc., nom. prostrata Raf. 11.cc., nom.

simplex Raf. Il.cc., nom.
\*ipecacuana Raf. Med. Fl. 1:183. 1828, nom., iter. Man. Med. Bot. 183. 1841. North America = E. ipecacuanhae Linn.

var. cespitosa Raf. 11.cc., nom. lanceolata Raf. II.cc., nom. portulacoides Raf. Il.cc., descr. prostrata Raf. Il.cc., nom. rotundifolia Raf. 11.cc., nom. rubra Raf. 11.cc., descr.

tuniflora Raf. ll.cc., descr. (E. uniflora Raf.).

†leucoloma Raf. Med. Fl. 2:220, 1830, nom., nota (E. marginata Pursh 1814, non H.B.K., 1822); Atl. Jour. 1:177.

1833, descr.; Herb. Raf. 22. 1833, descr. Arkansas, Texas= E. marginata Pursh.

var. cuneifolia Raf. Atl. Jour. et Herb. Raf. l.c., nom. elatior Raf. Il.cc., nom.

simplex Raf. 11.cc., nom.

\*littoralis Raf. Am. Monthly Mag. Crit. Rev. 2:119. 1817, descr. New York (Hudson River), non H.B.K.=E. depressa Torr.=E. supina Raf.

Iudoviciana Raf. Fl. Ludovic. 111. 1817, descr. (Euphorbe couchée ou tithymale dichotome Rob. Voy. Louis. 3:515. 1807). Louisiana.

\*maritima Raf. Fl. Tellur. 4:115. 1836 [1838], nom. nov.

\*maritima Rai. Fl. Tenur. 7.115. 1000 [1000], nom. 1000 Euphorbia paralias Linn. Europe.

\*missurica Raf. Atl. Jour. 1:146. 1832, nom. (E. portulacoides sensu Torr. Ann. Lyc. Nat. Hist. N. Y. 2:244. 1827). Missouri and Arkansas Rivers (E. zygophylloides Boiss., 1860); see Wheeler, Rhodora 43:132. 1941.

missourica Raf. ex Jacks\*. Ind. Kew 1:927. 1893=praec.
\*montana Raf. Am. Monthly Mag. Crit. Rev. 1:440. 1817,

\*montana Rai. Am. Monthly Mag. Crit. Rev. 1:440. 1817, descr.; Fl. Ludovic. 169. 1817, nom. Sicily.

\*peploides Raf. Western Minerva 59. 1821, nom. nov. E. peplus sensu Pursh, iter. Fox, Science II. 12:214. 1900; Med. Fl. 1:187. 1828, nom. (E. peplus sensu auct. Am.), iter. Man. Med. Bot. 187. 1841 (=Keraselma reniformis Raf. fide Raf. Aut. Bot. 93. 1840). Eastern United States= Euphorbia peplus Linn.

\*poinseti Raf. Atl. Jour. 1:182. 1833, nom. alt. Pleuradena coccinea Raf. Mexico=Euphorbia pulcherrima Willd.

(Poinsettia pulcherrima Grah.).

\*poinsetiana Raf. Fl. Tellur. 4:113. 1836 [1838], nom. in syn. sub Pleuradena coccinea Raf. Mexico=Euphorbia pulcherrima Willd. (Poinsettia pulcherrima Grah.).

\*serotina Raf. op. cit. 115, nom. nov. Euphorbia characias

Linn. Mediterranean region.

\*shortiana Raf. First Cat. Bot. Gard. Transylv. Univ. 14

\*\*Shortlana Raf. First Cat. Bot. Gard. Fransylv. Cliv. 14
1824, nom. Kentucky.

†\*supina Raf. Am. Monthly Mag. Crit. Rev. 2:119. 1817,
descr.; Fl. Ludovic. 170. 1817, nom.; Aut. Bot. 97. 1840,
nom. sub Xamesike Raf.; Boiss. ex DC. Prodr. 15(2): 47.
1862, nom. in syn. Long Island and New Jersey (Sandy Hook); see Wheeler, Contr. Gray Herb. 127:7. 1939,
Fosberg, Rhodora 48:200, 1946; Croizat, Bull. Torr. Bot.
Club 74:152. 1947; 75:188. 1948; Fosberg, op. cit. 74:332. 1947.

uniflora Raf. Med. Repos. II. 5:360. 1808, descr.; Jour. Bot. (Paris) 1:228. 1809, descr.; Med. Fl. 1:183. 1830, nom.

Maryland.

\*vermiculata Raf. Am. Monthly Mag. Crit. Rev. 2:119. 1817, nom.; op. cit. 2:206. 1818, descr.; Fl. Ludovic. 171. 1817, nom. New York (Glens Falls) (E. hirsuta Wiegand; E. rafinesquii Greene).

\*FORFASADIS Raf. Aut. Bot. 90. 1840, nom., sphalm.=Tor-

fasadis Raf.=Euphorbia Linn.

†GEMINARIA Raf. Western Minerva 42. 1821, nom., iter. Fox, Science II. 12:213. 1900 (Type Phyllanthus carolinensis Walt.); First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom. (Phyllanthus obovatus Muhl.)=Synexemia Raf. (1825)=Phyllanthus Linn.

obovata Raf. First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom. (Phyllanthus obovatus Muhl.). Kentucky=Phyllanthus carolinensis Walt.

GENESIPHYLA Raf. Sylva Tellur. 92. 1838, descr.=Genesiphylla L'Hér. (1788)=Phyllanthus Linn.

\*speciosa Raf. l.c., nom. ("apeciosa") (Phyllanthus speciosus Jacq.). Jamaica.

GENESIPHYLLA L'Hérit.=Phyllanthus Linn.

speciosa Raf. ex Jacks\*. Ind. Kew. 1:1008. 1893 (Genesiphyla speciosa Raf.). Jamaica=Phyllanthus speciosus Jacq.

HALECUS Raf. Sylva Tellur. 62. 1838, descr.=Croton Linn. mauritianus Raf. 1.c., nom. (Croton mauritianus Lam.). Mauritius.

verus Raf. 1.c., nom. [Croton tiglium Linn.?). Indo-Malaysia. HEPTALLON Raf. Neogen. 1. 1825, descr.; Sylva Tellur. 65. 1838, descr.=Croton Linn.

aromaticum Raf. Il.cc., descr. (Croton ellipticus sensu Ell.; Crotonopsis elliptica Willd.). Carolina=Croton elliottii Chapm., et, quoad syn. Willd., Crotonopsis elliptica Willd. capitatum Raf. Sylva Tellur. 65. 1838, descr. (Croton capitatus Michx.). Illinois, Missouri.

ellipticum Raf. 1.c., descr. (Croton ellipticus Nutt.). Louisiana=C. monanthogynus Michx.

\*fruticosum Raf. Aut. Bot. 48. 1840, descr. Arkansas. graveolens Raf. Neogen. 1. 1825, descr.; Sylva Tellur. 65. 1838, descr.; Med. Fl. 2:227. 1830, nom.; Aut. Bot. 47. 1840, descr. Kentucky, Tennessee, Illinois. \*lanceolatum Raf. Aut. Bot. 48. 1840, descr. Arkansas. \*simplex Raf. op. cit. 47, descr. Florida.

\*HEPTANIS Raf. Neogen. 1. 1825, nom. alt. Heptallon Raf.; Aut. Bot. 47. 1840, nom.=Croton Linn. \*elliptica Raf. Aut. Bot. 47. 1840, nom. sub Leptemon ellipti-

cum Raf. (Croton ellipticus Nutt.). Southeastern United States=Croton monanthogynus Michx.

HEXADENA Raf. Sylva Tellur. 92. 1838, descr.=Phyllanthus Linn.

angustifolia Raf. 1.c., nom. (Phyllanthus angustifolius Sw.). West Indies.

IATROPHA Stokes=Jatropha Linn.

\*stimulosa Raf. Am. Monthly Mag. Crit. Rev. 4:195. 1819, nom. [Jatropha stimulosa Michx.]. Southeastern United States=Bivonea stimulosa (Michx.) Raf.=Jatropha urens Linn. var. stimulosa (Michx.) Muell.-Arg.

JANIPHA H.B.K. = Manihot Adans. (1763).

\*stimulosa Raf. Med. Fl. 2:233. 1830, nom., nota [Jatropha stimulosa Michx.]. Virginia to Florida=Bivonea stimulosa (Michx.) Raf.=Jatropha urens Linn. var. stimulosa

(Michx.) Muell.-Arg. KANOPIKON Raf. Fl. Tellur. 4:114. 1836 [1838], descr.= Euphorbia Linn.

atropurpureum Raf. 1.c., descr. (Euphorbia atropurpurea Brouss.; Hook. Bot. Mag. 61: t. 3321. 1834). Teneriffe. #KARUITES Raf. Fl. Tellur. 4:116. 1836 [1838], descr. sub-

gen. Keraselma Neck.=Euphorbia Linn.

KERASELMA Neck.=Euphorbia Linn.

\*ciliata Raf. Aut. Bot. 94. 1840, descr. (Euphorbia pilosa auct. Am.). Missouri.

corifolia Raf. Fl. Tellur. 4:116. 1836 [1838], nom. (Euphorbia corifolia Lam.). South Africa.

cyparisias Raf. 1.c., nom.; Aut. Bot. 93. 1840, nom. (Euphorbia cyparissias Linn.). Europe.

diversifolia Raf. 1.c., nom. (Euphorbia diversifolia Poir.).

Mediterranean region.

\*echinocarpa Raf. Aut. Bot. 93. 1840, descr. (Euphorbia echinocarpa Sieber). Crete=Euphorbia cybirensis Boiss. esula Raf. Fl. Tellur. 4:116. 1836 [1838], nom. (Euphorbia

esula Linn.). Europe. var. pauciflora Raf. Aut. Bot. 93. 1840, descr. Bavaria.

exigua Raf. Fl. Tellur. 4:116. 1836 [1838], nom.; Aut. Bot. 92. 1840, descr. (Euphorbia exigua Linn.). Europe. falcata Raf. Fl. Tellur. 4:116. 1836 [1838], nom. (Euphorbia falcata Linn.). Mediterranean region.

genistoides Raf. 1.c., nom. (Euphorbia genistoides Berg.).

South Africa. \*lathyris Raf. l.c., nom.; Aut. Bot. 93. 1840, nom. (Euphorbia

lathrus Linn.). Europe. lathyroides Raf. ex Jacks\*. Ind. Kew. 2:5. 1894, sphalm.=

praec. leptophyla Raf. Fl. Tellur. 1.c., nom. (Euphorbia leptophylla

Vill.). Europe. lucida Raf. 1.c., nom. (Euphorbia lucida Waldst. & Kit.).

Europe. oleracea Raf. 1.c., nom. alt. Keraselma peplus Raf. [Euphorbia

oleracea Pers.]. Europe=Euphorbia peplus Linn. pallida Raf. 1.c., nom. (Euphorbia pallida Willd.). Europe. peplus Raf. 1.c., nom.; Aut. Bot. 93. 1840, nom. (Euphorbia

peplus Linn.). Europe.
provincialis Raf. Fl. Tellur. 4:116. 1836 [1838], nom.
(Euphorbia provincialis Willd.). Europe.
\*pungens Raf. Aut. Bot. 93. 1840, descr. Palestine, Arabia.
\*reniformis Raf. 1.c., descr. (Euphorbia peploides Raf.; E.
peplus auct. Am.). Pennsylvania to Missouri=Euphorbia peplus Linn.

var. retusa Raf. 1.c., descr. Ohio. retusa Raf. Fl. Tellur. 4:116. 1836 [1838], nom.; Aut. Bot. 92. 1840, descr. (Euphorbia retusa Bieb.). France, Spain. rubra Raf. Fl. Tellur. 1.c., nom. (Euphorbia rubra Cav.). Mediterranean region.

segetalis Raf. l.c., nom. (Euphorbia segetalis Linn.). Europe. seguieri Raf. 1.c., nom. (Euphorbia seguierii All.). Europe. \*spatulata Raf. Aut. Bot. 93. 1840, descr. Arkansas, Texas. squamosa Raf. Fl. Tellur. 4:116. 1836 [1838], nom. (Euphorbia squamosa Willd.). Caucasus.

sylvatica Raf. 1.c., nom. (Euphorbia sylvatica Linn.). Europe. \*virgata Raf. Aut. Bot. 93. 1840, descr. (Euphorbia virgata

Waldenst. & Kit.). Hungary.

KOBIOSIS Raf. Aut. Bot. 91, nom., 94, descr. 1840; Pennell,
Bull. Torr. Bot. Club 48:94. 1921., nom.=Euphorbia Linn. mellifera Raf. 1.c., descr.; Pennell, 1.c., nom. (Euphorbia mel-

lifera Ait.). Madeira.

KURKAS Adans. Fam. Pl. 549. 1763, in indice; Raf. Sylva

Tellur. 62. 1838, descr.=Croton Linn. acuminatum Raf. 1.c., nom. (Croton acuminatus Lam.); Aut. Bot. 50. 1840, nom. Japan=Mallotus japonicus (Thunb.) Muell.-Arg.

congestum Raf. Sylva Tellur. 1.c., nom. (Croton congestus Lour.). China=Xylosma congesta (Lour.) Merr.; see Merrill, Trans. Am. Philos. Soc. 24(2): 273. 1935. (Flacourtiaceae).

laxiflorum Raf. 1.c., nom. (Croton laxiflorus Geisel., 1807). Indo-China=Croton lasianthus Pers.; see Merrill, Trans. Am. Philos. Soc. 24(2):235, 1935.

populifolium Raf. 1.c., nom. (Croton populifolius Mill.). Tropical America.

quadrisetosum Raf. 1.c., nom. (Croton quadrisetosus Lam.). Peru.

tiglium Raf. l.c., nom. (Croton tiglium Linn.). Indo-Malaysia.

LACANTHIS Raf. Fl. Tellur. 2:94. 1836 [1837], descr.=

Euphorbia Linn.

splendens Raf. l.c., descr. (Euphorbia splendens Bojer ex Hook, Bot. Mag. 56: t. 2902. 1829). Madagascar=Euphor-

bia milii Des Moul. (1826).

LASCADIUM Raf. Fl. Ludovic. 114. 1817, descr. Am. Monthly Mag. Crit. Rev. 4:188. 1819, nom.; Desf. Ann. Sci. Nat. 1:167. 1821, descr.=Croton Linn.

lanatum Raf. Fl. Ludovic. 1.c., descr. (Atakaphace Rob. Voy.

Louis. 3:519. 1807). Louisiana. lanuginosum Raf. ex Steud. Nomencl. ed. 2, 2:10. 1841, nom. = praec.

LASIPANA Raf. Sylva Tellur. 21. 1838, descr.=Mallotus Loureiro (1790).

tricuspis Raf. op. cit. 22, descr. (Echinus trisulcus Lour.). Indo-China=Mallotus paniculatus (Lam.) Muell.-Arg.; see Merrill, Trans. Am. Philos. Soc. 24(2): 237. 1935. #LATHYRIS Raf. Fl. Tellur. 4:116. 1836 [1838], descr., sub-

gen. Keraselma Raf. (Type Euphorbia lathyris Linn.) =
Lathris Trew, 1754 ut gen.=Euphorbia Linn.

LEPADENA Raf. Fl. Tellur. 4:113. 1836 [1838], descr.; op. cit.
125, nom., nota; New Fl. N. Am. 4:99. 1836 [1838], nom.=
Dichrophyllum Klotzsch & Garcke, (1859)=Euphorbia
Linn.; see Nieuwl. Am. Midl. Nat. 2:300. 1912.

leucoloma Raf. op. cit. 114, descr. (Euphorbia leucoloma Raf.); op. cit. 125, nom., nota (Euphorbia marginata Pursh); Aut. Bot. 96. 1840, nom. (Euphorbia marginata Pursh). Arkan-Missouri=Lepadena marginata (Pursh) Nieuwl.= Euphorbia marginata Pursh (1814).

var. cuneifolia Raf. Fl. Tellur. 1.c., nom.

elatior Raf. 1.c., nom.

simplex Raf. 1.c., nom.
LEPTEMON Raf. Med. Repos. II. 5:353. 1808, nom. nov.
Crotonopsis Michx.; Jour. Bot. (Paris) 2:172. 1809, nom.
(Crotonopsis Michx.); Am. Monthly Mag. Crit. Rev. 2:265. 1818, nom., nota (Crotonopsis Michx.); op. cit. 4:189, 195.
1819, nom. (Crotonopsis Michx.); Jour. Phys. Chim. Hist.
Nat. 89:260. 1819, nom. (Crotonopsis Michx.); Sylva
Tellur. 67. 1838, descr. (Crotonopsis Michx.) = Crotonopsis Michx. (1803).

\*ellipticum Raf. Aut. Bot. 47. 1840, descr. (Croton ellipticus Nutt.; Crotonopsis elliptica Willd.; Heptanis elliptica Raf.). Kentucky, Tennessee, Missouri=Crotonopsis Willd.

lineare Raf. Sylva Tellur. 67. 1838, nom.; Aut. Bot. 46. 1840, nom. (Crotonopsis linearis Michx.). New Jersey to

Florida.

\*ovalifolium Raf. Aut. Bot. 46. 1840, descr. Florida = Crotonopsis elliptica Willd.

\*verrucosum Raf. op. cit. 47, descr. (? Croton ellipticus sensu Ell.). Carolina to Arkansas=Crotonopsis elliptica Willd. LOMANTHES Raf. Sylva Tellur. 92. 1838, descr. = Phyllanthus

Linn. latifolia Raf. 1.c., nom. (Phyllanthus latifolius Sw.; Xylophylla latifolia Linn.; Genesphylla [asplenifolia] L'Hérit.). Ja-maica=Phyllanthus latifolius (Linn.) Sw.

LOPHOBIOS Raf. Fl. Tellur. 4:116. 1836 [1838], descr.= Euphorbia Linn.

cristata Raf. 1.c., nom. (Euphorbia cristata D. Dietr.). Asia Minor.

terracina Raf. I.c., nom. (Euphorbia terracina Linn.). Mediterranean region.

LUNTIA Neck.=Croton Linn.

sericea Raf. Sylva Tellur. 62. 1838, nom. (Croton sericeus Lam.; C. matourensis Aubl.). Tropical America=Croton matourensis Aubl.

\*MASCALANTHUS Raf. Sylva Tellur. 92. 1838, nom. sub Synexemia Raf.; Fl. Tellur. 4:117. 1836 [1838], nom.; New Fl. N. Am. 4:100. 1836 [1838], nom.=Maschalanthus Nutt. (1837) = Andrachne Linn.

MEBOREA Aubl. = Phyllanthus Linn.

\*gujanensis Raf. Fl. Tellur. 4:100. 1836 [1838], nom. (Rhopium citrifolium Willd.; Meborea guianensis Aubl.). Guiana=Phyllanthus guyanensis (Aubl.) Muell.-Arg.

#MEDUSITA Raf. Fl. Tellur. 4:112. 1836 [1838], descr., subgen. Dactylanthes Haw .= Euphorbia Linn.

MEIALISA Raf. Sylva Tellur. 63. 1838, descr.=Adriana Gaudich. (1825).

australis Raf. op. cit. 64, nom. (Croton quadripartitus Labill.). Tasmania=Adriana quadripartita (Labill.) Gaudich.

MERLETA Raf. Aut. Bot. 49. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:93. 1921, nom. =? Croton Linn. microphyla Raf. 1.c., descr.; Pennell, 1.c., nom. Cuba.

MESANDRINIA Raf. Neogen. 3. 1825, nom. nov. Bivonea Raf. (1817) = Jatropha Linn.

METERANA Raf. Sylva Tellur. 65. 1838, descr. = Caperonia

A. St. Hil. (1824).

arborea Raf. op. cit. 66, descr. (Croton castaneifolius Burm. f. Fl. Ind. 205 (err. 305). t. 64. 1768, non Linn.). Java= Croton sp.

castanefolia Raf. 1.c., descr. (Croton castaneifolius Linn.). South America = Caperonia castaneifolia (Linn.) St. Hil.

dimidiata Raf. l.c., descr. (Acalypha australis Linn., var.).
South America=Caperonia.

palustris Raf. l.c., descr. (Croton palustris Linn.). Mexico=Caperonia palustris (Linn.) H.B.K.

MOERORIS Raf. Sylva Tellur. 91. 1838, descr.=Phyllanthus

stipulata Raf. 1.c., descr. (Phyllanthus niruri sensu Sw.). Jamaica = Phyllanthus niruri Linn.

MURTEKIAS Raf. Fl. Tellur. 4:116. 1836 [1838], descr.= Euphorbia Linn.

myrsinites Raf. 1.c., nom. (Euphorbia myrsinites Linn.). Southern Europe.

NELLICA Raf. Sylva Tellur. 92. 1838, descr. = Phyllanthus Linn. maderaspatana Raf. 1.c., nom. (Phyllanthus maderaspatensis Linn.). India.

NIRURIS Raf. Sylva Tellur. 91. 1838, descr. = Phyllanthus Linn. annua Raf. l.c., nom. Hab.?

indica Raf. l.c., descr. [Phyllanthus niruri Linn.]. Pantropic. NISOMENES Raf. Fl. Tellur. 4:116. 1836 [1838], descr.= Euphorbia Linn.

diffusa Raf. I.c., nom. (Euphorbia diffusa Jacq.). Europe. ODOTALON Raf. Sylva Tellur. 66. 1838, descr. = Argithamnia Sw. (1788) (Argyrothamnia Muell.-Arg., 1865).

lanceolata Raf. op. cit. 67, nom. (Croton lanceolatus Cav.). Chile=Argithamnia tricuspidata (Lam.) Muell.-Arg. var. lanceolata (Cav.) Muell.-Arg.

tricuspidata Raf. op. cit. 66, nom. (Croton tricuspidatus Lam.) Peru, Chile=Argithamnia tricuspidata (Lam.) Muell.-Arg. #PARALIAS Raf. Fl. Tellur. 4:115. 1836 [1838], descr., subgen. Tithymalis Raf. [Tithymalus Adans.] Type Euphorbia paralias Linn.) = Euphorbia Linn.

PECCANA Raf. Sylva Tellur. 114. 1838, descr.; Aut. Bot. 138. 1840, nom. = Euphorbia Linn.

glauca Raf. Sylva Tellur. 115. 1838, descr. (Euphorbia graminea sensu Sw.). Jamaica.

PEDILANTHUS Neck.; Raf. Fl. Tellur. 4:117. 1836 [1838], descr

myrsifolius Raf. ex Jacks\*. Ind. Kew. 2:447. 1894, sphalm.= P. myrtifolius Link (Euphorbia myrtifolia Lam.). Tropical America=Pedilanthus tithymaloides (Linn.) Poit.

PENTECA Raf. Sylva Tellur. 62. 1838, descr. = Croton Linn. tomentosa Raf. l.c., descr. (Croton dioicus Cav.). Mexico. PETALOMA Raf. ex Baillon Adansonia 1:114. 1860, nom. in syn., ut sect. Euphorbia Linn., et ex Boiss. in DC. Prodr. 15(2):63. 1862, descr., sect. Euphorbia Linn. (Ex Boissier, "Genus Petaloma Rafin. Atl. Jour. 177," sphalm.), non Sw. (1788), nec Roxb. (1814, 1832) = Euphorbia Linn.; see Wheeler, Am. Midl. Nat. 30:471. 1943. (Type Lepadena Linn.) leucoloma Raf.).

PHYLLANTHUS Linn.

\*carolinianus Raf. Western Minerva 42. 1821, nom., iter. Fox, Science II. 12:213. 1900—Phyllanthus carolinensis Walt. Southeastern United States.

PLEOPADIUM Raf. Aut. Bot. 50. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:93. 1921, nom. Ex descr.: Pennell, Bull. Cliiatum Raf. l.c., descr.; Pennell, l.c., nom. (Croton glandulosus hort.). South America.

 PLEURADENA Raf. Atl. Jour. 1:182. 1833, descr.; Fl. Tellur.
 4:113. 1836 [1838], descr. [Ind. Kew. 2:562. 1894 Pleuradenia], non Pleuradenia Raf. (1825)=Euphorbia Linn. (Poinsettia Grah., 1836).

coccinea Raf. Il.cc., descr.; Aut. Bot. 96. 1840, nom. (Euphorbia pulcherrima Willd., 1834; Euphorbia poinsettiana Buist ex Grah., 1836; Poinsettia pulcherrima Grah., 1836; Hook. Bot. Mag. 63: t. 3493. 1836). Mexico=Euphorbia pulcherrima Willd.

PYTHIUS Raf. ex Jacks\*. Ind. Kew. 2:670. 1895, sphalm.= Pithiusa Raf.=Euphorbia Linn.

dulcis Raf. ex Jacks\*. Ind. Kew. 2:670. 1895 (Euphorbia dulcis Linn.). Europe.

epithymoides Raf. ex Jacks\*. 1.c. (Euphorbia epithymoides Linn.). Europe.

fuscata Raf. ex Jacks\*. l.c. (Euphorbia fuscata Raf. [Euphorbia pithyusa Linn.]). Mediterranean region.

obtusata Raf. ex Jacks\*. 1.c. (Euphorbia obtusata Pursh).
Eastern North America.

\*PYTHIUSA Raf. Fl. Tellur. 4:116. 1836 [1838], descr. ut subgen. Tithymalis Raf. (Type Euphorbia pithyusa Linn.;

Tithymalus pithyusa Scop.) = Euphorbia Linn. #SADIDA Raf. Fl. Tellur. 4:112. 1836 [1838], nom., nota, subgen. Euphorbia Linn.

SEBORIUM Raf. Sylva Tellur. 63. 1838, descr.=Sapium P. Browne (1756).

chinense Raf. 1.c., nom. (Stillingia sebifera Michx.). China =Sapium sebiferum (Linn.) Roxb.

SEMILTA Raf. Sylva Tellur. 63. 1838, descr.; Aut. Bot. 50. 1840, nom. sub Aldinia Raf. = Croton Linn.

althefolia Raf. l.c., nom. (Croton althacifolius Mill.). Tropical America.

STILINGIA Raf. Atl. Jour. 1:146. 1832, nom. = Stillingia Linn. \*salicifolia (Torr.) Raf. Atl. Jour. 1:146. 1832, nom. (S. sylvatica Linn. var. salicifolia Torr. Ann. Lyc. Nat. Hist. N. Y. 2:245. 1827. Canadian River? [Oklahoma?] (Stillingia lanceolata Nutt.; S. smallii Woot. & Standl.).

STILLINGIA Linn. \*montana Raf. Herb. Raf. 67. 1833, nom. Cumberland Moun-

tains. Prob.=S. sylvatica Linn. salicifolia Raf. ex Jacks\*. Ind. Kew. 2:998. 1895 [Stilingia

salicifolia Raf. ex Jacks\* Ind. Kew. 2:998. 1895 [Stilingia salicifolia]=S. salicifolia (Torr.) Raf.

SYNEXEMIA Raf. Neogen. 2. 1825, descr., nom. nov. Geminaria Raf. (1821); Fl. Tellur. 4:117. 1836 [1838], descr. (Maschalanthus Nutt. 1837); Sylva Tellur. 92. 1838, descr. (Maschalanthus Nutt. 1837); New Fl. N. Am. 4:100. 1836 [1838], nom., nota (Maschalanthus Nutt. 1837)=Phyllanthus Linn. et, quoad Maschalanthus Nutt.=Andrachne Linn.

caroliniana Raf. Neogen. 2. 1825, nom. (Phyllanthus carolinensis Walt.). Eastern North America=Phyllanthus carolinensis Walt.

cuneifolia Raf. New Fl. N. Am. 4:100. 1836 [1838], descr.;

Sylva Tellur. 92. 1838, nom. Louisiana and Arkansas. obovata Raf. Neogen. 2. 1825, nom. (Phyllanthus obovatus Muhl.); Sylva Tellur. 92. 1838, nom. (Phyllanthus obovatus Muhl.). Eastern North America=Phyllanthus carolinensis Walt.

pumila Raf. Neogen. 1.c., descr. Kentucky. \*TIRUCALIA Raf. Fl. Tellur. 4:112. 1836 [1838], descr.; Aut. Bot. 90. 1840, nom. = Euphorbia Linn.

\*indica Raf. 1.c., nom. (Euphorbia tirucalli Linn.). Old World tropics.

TIRUCALLA Raf. ex Jacks\*. Ind. Kew. 2:1083. 1895=praec.

indica Raf. ex Jacks\*. l.c.=praec.
\*TITHYMALIS Raf. Fl. Tellur. 4:115. 1836 [1838], descr.; Aut. Bot. 90. 1840, nom. = Tithymalus Hill (1756) = Euphorbia Linn.

\*amygdaloides Raf. Aut. Bot. 91. 1840, nom. (Euphorbia amygdaloides Linn.; Tithymalus amygdaloides Hill). Europe.

\*angulata Raf. Fl. Tellur. 4:115. 1836 [1838], nom. (Euphor-

bia angulata Jacq.). Europe. \*apios Raf. Aut. Bot. 92. 1840, nom. [Euphorbia apios Linn.;

Tithymalus apios Hill). Crete.

\*bavarica Raf. Aut. Bot. 91. 1840, nom. nov. provis. (T. verrucosa Raf. var. glabra Raf.). Bavaria.

\*calendula Raf. op. cit. 92, nom. Euphorbia [calendulaefolia] Delile. Egypt.

\*carniolica Raf. Fl. Tellur. 4:115. 1836 [1838], nom. (Euphor-

bia carniolica Jacq.). Europe.
\*characias Raf. l.c., nom.; Aut. Bot. 91. 1840, nom. (Euphorbia characias Linn.; Tithymalus characias Hill.). England to Sicily.

\*cinerea Raf. Aut. Bot. 91. 1840, descr. Styria, Bavaria. \*connata Raf. Aut. Bot. 92. 1840, descr. Syria. \*coralloides Raf. Fl. Tellur. 4:115. 1836 [1838], nom. (Euphorbia coralloides Linn.). Italy.

\*cristata Raf. l.c., descr. (Euphorbia cornuta Pers.). Egypt. \*dendroides Raf. Fl. Tellur. 4:115. 1836 [1838], nom. (Euphorbia dendroides Linn.; Tithymalus dendroides Hill). Germany

\*dulcis Raf. op. cit. 116, nom. (Euphorbia dulcis Linn.). Germany.

\*epithymoides Raf. 1.c., nom. (Euphorbia epithymoides Linn.). Europe.

\*floridana Raf. Aut. Bot. 91. 1840, descr. Florida, Georgia. \*fuscata Raf. Fl. Tellur. 4:116. 1836 [1838], nom. alt. T. pythiusa Raf. [Euphorbia pithyusa Linn.]. Mediterranean

\*gerardi Raf. 1.c., nom. (Euphorbia gerardiana Jacq.). Europe. \*granulata Raf. l.c., nom. (Euphorbia granulata Forsk.).

Africa, Asia.

\*helioscopia Raf. l.c., nom.; Aut. Bot. 92. 1840, descr. (Eu-phorbia helioscopia Linn.; Tithymalus helioscopius Hill). Europe.

\*hiberna Raf. Fl. Tellur. l.c., nom. (Euphorbia hyberna Linn.; Tithymalus hybernus Hill). Europe.

\*linearis Raf. l.c., nom. (Euphorbia linearis Retz.). West

\*literata Raf. l.c., nom. (Euphorbia literata Jacq.). Europe. \*maritima Raf. l.c., nom. nov. Euphorbia paralias Linn. Europe.

\*micrantha Raf. 1.c., nom. (Euphorbia micrantha Steph.). Europe.

\*mucronata Raf. Aut. Bot. 91. 1840, descr. Sicily, Crete.
\*obovata Raf. op. cit. 92, descr. (Euphorbia helioscopia auct.).
New England to Kentucky; England to Sicily=Euphorbia helioscopia Linn.

\*obtusata Raf. Fl. Tellur. 4:115. 1836 [1838], nom. (Eu-

phorbia obtusata Pursh). North America.
\*palustris Raf. Fl. Tellur. l.c., nom.; Aut. Bot. 92. 1840, nom.
(Euphorbia palustris Linn.; Tithymalus palustris Hill). Europe.

\*paniculata Raf. Fl. Tellur. 1.c., nom. (Euphorbia paniculata Desf.). North Africa.

\*paralias Raf. Aut. Bot. 92. 1840, nom. (Euphorbia paralias Linn.; Tithymalis paralias Hill). Europe.

\*pilosa Raf. Fl. Tellur. 4:115. 1836 [1838], nom. (Euphorbia pilosa Linn.; Tithymalus pilosus Hill). Europe.

\*platiphylos Raf. 1.c., nom. (Euphorbia platyphyllos Linn.; Tithymalus platyphyllos Hill); Aut. Bot. 91. 1840, nom. Europe.

\*pythiusa Raf. Fl. Tellur. op. cit. 116, nom. (Euphorbia pithyusa Linn.). Mediterranean region.

\*rosea Raf. op. cit. 115, nom. (Euphorbia rosea Retz.). India. \*saxatilis Raf. Aut. Bot. 92. 1840, nom. [Euphorbia saxa-

tilis Jacq.]. Styria, Illyria.
\*serotina Raf. Fl. Tellur. 4:115. 1836 [1838], nom. nov.
Euphorbia characias Linn. [vel Euphorbia serotina Host.]. Europe.

\*spinosa Raf. 1.c., nom. (Euphorbia spinosa Linn.). Southern Europe.

\*verrucosa Raf. 1.c., nom.; Aut. Bot. 91. 1840, nom. (Eu-phorbia verrucosa Linn.). Europe.

var. glabra Raf. l.c., descr. Bavaria. (Tithymalis bavarica Raf.).

TITHYMALUS Hill (1756) (Tithymalis Raf., 1838) = Euphorbia Linn.

angulatus Raf. ex Jacks\*. Ind. Kew. 2:1085. 1895 (Euphorbia angulata Jacq.). Europe.

carniolicus Raf. ex Jacks\*. 1.c. (Euphorbia carniolica Jacq.). Europe.

coralloides Raf. ex Jacks\*. 1.c. (Euphorbia coralloides Linn.). Italy.

gerardi Raf. ex Jacks\*. 1.c. (Euphorbia gerardiana Jacq.). Europe.

granulata Raf. ex Jacks\*. 1.c. (Euphorbia granulata Forsk.). Africa, Asia.

linearis Raf. ex Jacks\*. 1.c. (Euphorbia linearis Retz.). West Indies.

literata Raf. ex Jacks\*. 1.c. (Euphorbia literata Jacq.). Europe.

micrantha Raf. ex Jacks\*. 1.c. (Euphorbia micrantha Steph.). Europe.

paniculata Raf. ex Jacks\*. l.c. (Euphorbia paniculata Desf.). North Africa.

platiphylos Raf. ex Jacks\*. 1.c. (Euphorbia platyphyllos Linn.). Europe.

roseus Raf. ex Jacks\*. 1.c. (Euphorbia rosea Retz.). India. serotina Raf. ex Jacks\*. l.c. (Tithymalis serotina Raf.) = Euphorbia characias Linn. Europe.

verrucosa Raf. ex Jacks\*. 1.c. (Euphorbia verrucosa Linn.). Europe.

\*TORFASADIS Raf. Fl. Tellur. 4:112. 1836 [1838], descr.= Euphorbia Linn.

\*canariensis Raf. 1.c., nom. (Euphorbia canariensis Linn.). Canary Islands.

TORFOSIDIS Raf. ex Jacks\*. Ind. Kew. 2:1089. 1895, sphalm.

canariensis Raf. ex Jacks\*. l.c.=praec.
TRIPLANDRA Raf. Sylva Tellur. 62. 1838, descr.=Croton

lanata Raf. op. cit. 63, descr. (Croton lanatus Lour.). Indo-China (Annam) = Croton lasianthus Pers.; see Merrill, Trans. Am. Philos. Soc. 24(2):235. 1935.

#TULOCARPA Raf. Fl. Tellur. 4:115. 1836 [1838], descr.,

subgen. Tithymalis Raf. (Type Tithymalis spinosa Raf. = Euphorbia spinosa Linn.) = Euphorbia Linn. #TULOISIA Raf. Fl. Tellur. 4:115. 1836 [1838], descr.. sub-

gen. Tithymalis Raf. (Type Tithymalis verrucosa Raf.= Euphorbia verrucosa Linn.)=Euphorbia Linn. TUMALIS Raf. Fl. Tellur. 4:114. 1836 [1838], descr.=Eu-

phorbia Linn.

bojeri Raf. I.c., descr. (Euphorbia bojeri Hook. Bot. Mag. 63: t. 3527. 1836). Madagascar.

VALLARIS Raf. Fl. Tellur. 4:114. 1836 [1838], descr., non Burm. f. (1768) = Euphorbia Linn.

fimbriata Raf. op. cit. 115, nom. (Euphorbia fimbriata Scop.). Europe.

ipecacuana Raf. l.c., nom., Aut. Bot. 96. 1840, nom. (Eu-phorbia ipecacuanhae Linn.). New Jersey to Carolina.

var. heterophyla Raf. Aut. Bot. 1.c., descr. linearifolia Raf. 1.c., descr.=E. ipecacuanhae forma linearis (Mold.) Fern. Rhodora 50:148. 1948. portulacoides Raf. I.c., descr. New Jersey. uniflora Raf. 1.c., descr.

missurica Raf. Fl. Tellur. 4:115. 1836 [1838], nom. (Eu-phorbia missurica Raf.). Missouri.

portulacoides Raf. I.c., nom. (Euphorbia portulacoides Linn.). Chile.

uniflora Raf. 1.c., nom. (Euphorbia uniflora Raf.). Eastern United States.

VANDERA Raf. Aut. Bot. 49. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:93. 1921, nom.=? Croton Linn.

discolor Raf. 1.c., descr. ("Croton do Jal[ambic], non alis.");
Pennell, 1.c., nom. Cuba.

**XAMESIKE** Raf. Fl. Tellur. 4:115. 1836 [1838], descr.; New Fl. N. Am. 4:99. 1836 [1838], nom.; Aut. Bot. 96. 1840, descr.=Euphorbia Linn.

descr.:=Euphorbia Linn.
\*alsinoides Raf. Aut. Bot. 98. 1840, descr. Siberia.
\*deltifolia Raf. l.c., descr. Florida. Ex type, herb. Durand=
E. spathulata Lam. (E. dictyosperma Fisch. & Mey.).
\*depressa Raf. op. cit. 97, descr. (Euphorbia depressa Torr.).
New York to Louisiana=Euphorbia maculata Linn.
\*glauca Raf. l.c., descr. Virginia, Kentucky.
\*gracilis Raf. op. cit. 98, descr. (Euphorbia gracilis Ell.).
Florida=? Euphorbia ipecacuanhae Linn.
\*hypericifolia Raf. op. cit. 98, nom. (Euphorbia hypericifolia).

\*hypericifolia Raf. op. cit. 98, nom. (Euphorbia hypericifolia Linn.). Canada to Carolina.

var. parviflora Raf. l.c., descr. Alabama. sanguinolenta Raf. l.c., descr. Pennsylvania. \*littoralis Raf. op. cit. 97, descr. New York=Euphorbia maculata Linn.

\*maculata Raf. 1.c., descr. (Euphorbia maculata Linn.). North America.

\*micranthes Raf. op. cit. 98, descr. Alabama, Louisiana. \*microphyla Raf. I.c., nom. (Aplarina microphyla Raf.). Louisiana, Texas.

\*palestina Raf. op. cit. 97, descr. (Euphorbia canescens Linn.). Palestine = Euphorbia chamaesyce Linn.

\*polygonia Raf. op. cit. 98, nom. (Euphorbia polygonifolia

Linn.). New Jersey to Carolina. \*prostrata Raf. op. cit. 99, nom. [Aplarina prostrata Raf.]. Pennsylvania.

\*rotundifolia Raf. 1.c., descr. (Euphorbia humboldtii Willd.?).

Central America.
scordifolia Raf. Fl. Tellur. 4:115. 1836 [1838], nom. subnud.
[Euphorbia scordifolia Jacq.]. Tropical Africa.
\*supina Raf. Aut. Bot. 97, descr. (Euphorbia supina Raf.).
New York to Ohio=Euphorbia maculata Linn.

\*vermiculata Raf. l.c., descr. New York to Ohio=Euphorbia vermiculata Raf.

vulgaris Raf. Fl. Tellur. 4:115. 1836 [1838], nom. (Euphor-

bia chamaesyce Linn.). Mediterranean region.

xamobala Raf. ex Jacks\*. Ind. Kew. 2:1235. 1895, sphalm.;

"Xamobala" Raf. Fl. Tellur. 4:115. 1836 [1837] est subgen. Xamesike Raf.

\*XAMESUKE Raf. Aut. Bot. 138. 1840, nom., sphalm.= Xamesike Raf.=Euphorbia Linn.

#XAMOBALA Raf. Fl. Tellur. 4:115. 1836 [1838], nom. subgen. Xamesike Raf.; Aut. Bot. 97. 1840, descr., subgen. Xamesike Raf. (Type Xamesike gracilis Raf.).=Euphorbia Linn.

#XARAKIAS Raf. Fl. Tellur. 4:115. 1836 [1838], descr., subgen. Tithymalis Raf. (Tithymalus (Tourn.) Boiss., Type Tithymalis characias Raf., Euphorbia characias Linn.) = Euphorbia Linn.

ZALITEA Raf. New Fl. N. Am. 4:98. 1836 [1838], descr.= Euphorbia Linn. (Zygophyllidium (Boiss.) Small, 1903). linearis Raf. op. cit. 99, descr.; Aut. Bot. 14. 1840, nom. Red River of Louisiana, Arkansas=Euphorbia hexagona Nutt.

### CALLITRICHACEAE 21

CALLITRICHE Linn.

connata Raf. Med. Repos. III. 2:408. 1811, descr. (Callitriche brutia Petagna). Sicily, Calabria.

cruciata Raf. l.c., descr.; Am. Monthly Mag. Crit. Rev. 1:359. 1817, nom. Pennsylvania.

\*cuneifolia Raf. Herb. Raf. 61. 1833, nom. Kentucky or Illinois.

foliosa Raf. Med. Repos. II. 5:354. 1808, nom. nov. Callitriche autumnalis sensu Michx.; Jour. Bot. (Paris) 2:174. 1809 (C. autumnalis sensu Mcihx.); Med. Repos. III. 2:408.

1811, descr. North America = C. autumnalis Linn.
\*lanceolata Raf. Chloris Aetn. 4. 1815, nom. Sicily.
ovata Raf. Med. Repos. III. 2:408. 1811, descr. Pennsyl-

plena Raf. 1.c., descr. Europe.

21 Rafinesque's "Monography of the Genus Callitriche" announced by him (Précis Découv. Somiol. 1814, p. 3 of cover) as having been sent to the Linnean Society, London, was rejected and never published. He said that he recognized about sixteen species.

CALLITRICHE (continued).
spuria Raf. Med. Repos. II. 5:354, 1808, nom. nov. Callitriche verna sensu Michx.; Jour. Bot. (Paris) 2:174. 1809 (C. verna sensu Michx.); Med. Repos. III. 2:408. 1811, descr. North America=C. palustris Linn.
\*stellaria Raf. Med. Repos. III. 2:408. 1811, descr. (Callitriche autumnalis Linn.). Europe, North America=C. au-

tumnalis Linn.

terrestris Raf. Med. Repos. II. 5:358. 1808, descr.; Jour. Bot. (Paris) 1:223. 1809, descr.; Med. Repos. III. 2:408. 1811, descr. (C. terrestris Muhl. cf. Muhl. Cat. 1. 1813); Am. Monthly Mag. Crit. Rev. 1:359. 1817, nom. (C. terrestris Muhl. Cat. 1. 1813); Phys. Chim. Hist. Nat. 89:257. 1819, nom.; Jour. Phys. Chim. Hist. Nat. 89:257. 1819, nom., nota (Callitriche brevifolia Pursh); First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom. New Jersey, Pennsylvania, Delaware and Kentucky=C. austini Engelm.; C. deflexa R. Br. var. austini Hegelm.)=? C. verna Linn.; see Fernald, Rhodora **43**:589. 1941.

### BUXACEAE

PACHYSANDRA Michx.

†erecta Raf. Herb. Raf. 62. 1833, nom.; Baill. Monogr. Bux. Styloc. 56. 1859, descr. Kentucky or Illinois.

### EMPETRACEAE

COLEMA Raf. New Fl. N. Am. 3:49. 1836 [1838], nom., sphalm.=Corema D. Don (1826), see Raf. op. cit. 4:107. 1836 [1838].

arenaria Raf. 1.c., descr. (Empetrum conradii Torr.). New

Jersey=Corema conradii (Torr.) Loud.

EMPETRUM Linn.

crassifolium Raf. New Fl. N. Am. 3:51. 1836 [1838], descr.

Siberia = E. nigrum Linn.

purpureum Raf. op. cit. 50, descr. (E. nigrum sensu Michx.).
Labrador and Newfoundland to the White Mountains and Lake Superior=Empetrum nigrum Linn., pureum (Raf.) Fernald, Rhodora 25:83. 1923.

ENDAMMIA Raf. New Fl. N. Am. 3:49. 1836 [1838], sub

Euleucum Raf. nom.=Corema D. Don (1826).

ericoides Raf. 1.c., nom. alt. Colema arenaria Raf.=Corema conradii (Torr.) New Jersey.

#EULEUCA Raf. New Fl. N. Am. 3:49. 1836 [1838], sub Colema [Corema] D. Don, descr. subgen. Corema G. Don. (Type Empetrum album Linn.) = Corema G. Don (1826).

EULEUCUM Raf. Fl. Tellur. 3:49, nom., 56, descr., 1836 [1837] = Corema D. Don (1826).

album Raf. l.c., nom. [Empetrum album Linn.]. Southwestern Europe=Corema album (Linn.) D. Don.

### LIMNANTHACEAE

FLOERKEA Willd.

\*flaccida Raf. Am. Jour. Sci. 1:375. 1819, nom. alt. F. proser-pinacoides Willd.; Isis von Oken 1822, 2:1321. 1822. North America=F. proserpinacoides Willd.
\*olitoria Raf. Il.cc., nom. alt. F. proserpinacoides Willd.

North America=praec.

\*tenella Raf. 11.cc., nom. alt. F. proserpinacoides Willd. North America=praec.

FLORKEA Raf. Med. Repos. II. 5:351. 1808, nom., nota; Jour. Bot. (Paris) 2:168. 1809, nom., nota; Aut. Bot. 8.

1840, nom., nota=Floerkea Willd.

\*palustris Raf. Med. Repos. et Jour. Bot. (Paris) Il.cc., nom.;
A. Gray, Am. Jour. Sci. 40:227. 1841, nom. Pennsylvania=

Floerkea palustris Nutt.=F. proserpinacoides Willd. \*uliginosa Raf. Aut. Bot. 8. 1840, nom. [Floerkea uliginosa Muhl.]. Louisiana = Floerkea proserpinacoides Willd.

## ANACARDIACEAE

CALESIA Raf. Princ. Somiol. 29. 1814, nom. nov. Calesiam Adans. (1763); Fl. Tellur. 1:85. 1836 [1837], nom. = Lannea A. Rich. (1832), nom. conserv. (Calesiam Adans., 1763; Odina Roxb., 1814, 1832; Haberlia Dennst., 1818).

CALSIAMA Raf. Sylva Tellur. 12. 1838, descr. (Kalesjam Rheede, 1683; Calesiam Adans. 1763) = praec.

malabarica Raf. 1.c., descr. (Kalesjam Rheede, Hort. Malabar. 4:67. t. 32. 1683). India=Lannea coromandelina (Houtt.) Merr. (Odina wodier Roxb.; Haberlia grandis Dennst.; Lannea grandis Engl.).

\*COMINIA Raf. Aut. Bot. 83. 1840, nom. sub Sumacus Raf.=

Rhus Linn. COTINUS Linn.

\*ellipticus Raf. Aut. Bot. 83. 1840, descr. "Mts. of Tyrol, Carniolia, Siberia and Origon?"=Cotinus coggygria Scop. \*obovatus Raf. op. cit. 82, descr. Arkansas, Louisiana. (Rhus cotinoides Nutt. ex Torr. & Gray, Fl. N. Am. 1:217. 1838, nom. in syn.; Cotinus americanus Nutt. Sylva 2: t. 81. 1865); see Little, Proc. Oklahoma Acad. Sci. 23:21. 1943.

\*retusus Raf. 1.c., descr.: Asia=Cotinus coggygria Scop.

\*FESTANIA Raf. Aut. Bot. 83, nom., 84., descr., 1840; Pennell,
Bull. Torr. Bot. Club. 48:93. 1921, nom.=Rhus Linn.

nivea Raf. 1.c., descr.; Pennell, 1.c., nom. (Rhus sp., herb.
Collins). Africa. Ex descr.=Rhus angustifolia Linn.

\*LILITHIA Raf. Aut. Bot. 83. 1840, nom. sub Sumacus montana Raf.=Rhus Linn.

\*LILITHIA Raf. Aut. Bot. 87. Am Monthly Mag. Crit. Ray 4:102 207

tana Raf.=Rhus Linn.

†LOBADIUM Raf. Am. Monthly Mag. Crit. Rev. 4:192, 207.
1819, nom. (Rhus aromatica Ait.); op. cit. 357, descr.;
Jour. Phys. Chim. Hist. Nat. 89:98. 1819, descr.; Isis
von Oken 1820, 1: Lit. Anz. 238. 1820, descr.; Loud. Gard.
Mag. 8:246. 1832, nom., nota, iter. Schlecht. Linnaea 8:
Lit.-Ber. 69. 1833, iter. Britten, Jour. Bot. 38:226. 1900;
Aut. Bot. 84, 1840, nom., nota=Rhus Linn. sect. Lobadium
(Raf.) DC. (Schmaltzia Desv., 1813).
amentaceum Raf. Am. Monthly Mag. Crit. Rev. 4:358. 1819,
descr. Pennsylvania—Rhus aromatica Ait.

descr. Pennsylvania=Rhus aromatica Ait.

\*fetidum Raf. Aut. Bot. 84. 1840, descr. Alleghany Mountains=? praec.
\*rotundifolium Raf. l.c., descr. Alabama, Florida.

\*rupestre Raf. 1.c., descr. Virginia, Carolina, Kentucky=? Rhus aromatica Ait.

suaveolens Raf. ex Jacks\*. Ind. Kew. 2:102. 1894 (Rhus suaveolens Ait.; Myrica trifoliata sensu Turpin, non Linn.)

=Rhus aromatica Ait.

†trifoliatum Raf. Western Minerva 42. 1821, nom. (Rhus aromatica Ait.), iter. Fox, Science II. 12:213. 1900; First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom. (Rhus suaveolens Ait.); Herb. Raf. 62. 1833, nom. Kentucky= Rhus aromatica Ait.

\*trilobatum Raf. Aut. Bot. 84. 1840, nom. [North America]. Prob.=Rhus trilobata Nutt. (Schmaltzia crenata (Mill.)

\*MALOSMA (Nutt.) Raf. Aut. Bot. 83. 1840, nom. sub Sumacus Raf., descr. [Rhus Linn., sect. Malosma Nutt. ex Torr. & Gray, Fl. N. Am. 1:219. 1838] = Rhus Linn.
\*laurina Nutt. ex Engl. in DC. Monog. Phan. 4:383. 1883, nom. in syn. = Rhus laurina Torr. & Gray. North America.

PHILOSTEMON Raf. Fl. Ludovic. 107. 1817, descr.; Aut. Bot. 83, 1840, descr.=Rhus Linn. (Toxicodendron Linn.). \*Iutescens Raf. Aut. Bot. 83. 1840, descr. (Philostemon radicans Raf. Fl. Ludovic. 107. 1817); Herb. Raf. 56. 1833, nom. Florida to Louisiana=Rhus toxicodendron Linn. var. radicans (Linn.) Torr.=R. radicans Linn. radicans Raf. Fl. Ludovic. 107. 1817, descr. (Terebinthacée liane Rob. Voy. Louis. 3:506. 1807); Aut. Bot. 83. 1840, descr. (Rhus radicans Linn.). Louisiana=Rhus toxicodendron Linn. var. radicans (Linn.) Torr.=R. radicans Linn.

dron Linn, var. radicans (Linn.) Torr.=R. radicans Linn. \*toxicodendron Raf. Aut. Bot. 83. 1840, descr. (Rhus toxicodendron) Linn.). North America.

RHUS Linn.

\*toxicum Raf. Med. Fl. 2:257. 1830, nom. (R. toxicarium Salisb.)=Rhus toxicodendron Linn. Eastern America.

†SCHMALTZIA Desv. Jour. Bot. Desv. 2:229. 1813, nom. nov. Turpinia Raf.; Raf. Loud. Gard. Mag. 8: 246. 1832, nom., nota, iter. Schlecht. Linnaea 8: Lit.-Ber. 69. 1833, iter. Britten, Jour. Bot. 38:226. 1900; Steud. Nomencl. ed. 2, 2:531. 1841, nom. = Schmalzia Desv. in DC. Prodr. 2:72. 1825, nom. in syn., sub Rhus Linn., sect. Lobadium (Raf.) DC.=Rhus Linn.

\*SUMACHIUM Raf. Am. Monthly Mag. Crit. Rev. 2:265. 1818,

nom. nov. Rhus Linn.

\*SUMACUS Raf. Fl. Tellur. 3:56. 1836 [1837], nom. nov. Rhus Linn.; Aut. Bot. 83. 1840 (Rhus Linn.) = Rhus Linn., sect. Sumac DC.

\*copallina Raf. 1.c., nom., nota (Rhus copallina Linn.). New

\*floridana Raf. l.c., nom. New Jersey?
\*montana Raf. l.c., nom. Alleghany Mountains.
\*THEZERA Raf. Aut. Bot. 83. 1840, nom., sub Sumacus Raf.=? Rhus Linn.

TURPINIA Raf. Med. Repos. II. 5:352. 1808, nom.; Jour. Bot. (Paris) 2:170. 1809, nom.; Loud. Gard. Mag. 8:246. 1832, nom., nota (Rhus aromatica Ait.), iter. Schlecht. Linnaea 8: Lit.-Ber. 69. 1833, iter. Britten, Jour. Bot. 38:226. 1900, non Turpinia Vent. (1803)=Lobadium Raf. (1819)=Schmaltzia Desv. (1814)=Rhus Linn., sect. Lobadium (Raf.) DC.

aromatica Raf. ex Jacks\*. Ind. Kew. 1:1138. 1895 (Rhus aromatica Ait.). Eastern North America—Rhus aromatica

Ait.

glabra Raf. Med. Fl. et Jour. Bot. (Paris) 11.cc., nom. (Rhus canadensis Marsh.); A. Gray, Am. Jour. Sci. 40:228. 1841, nom.; Eastern North America=praec.

pubescens Raf. II.cc., nom. (Rhus aromatica Ait.); A. Gray, I.c., nom. Eastern North America=praec.
suaveolens Raf. ex Jacks\*. Ind. Kew. 2:1138. 1895 (Rhus suaveolens sensu Michx.). Eastern North America=praec.

## CYRILLACEAE

CYRILLA Garden ex Linn.

fuscata Raf. Aut. Bot. 8. 1840, descr. Alabama, Georgia= Cyrilla racemiflora Linn.

parvifolia Raf. l.c., descr. Alabama, Florida; Small, Man. Southeast. Fl. 812. 1933=praec.

polystachia Raf. 1.c., descr. Florida, Louisiana=praec.

### AQUIFOLIACEAE

AGERIA Adans.; Raf. Sylva Tellur. 46. 1838, descr.=Ilex Linn. acuminata Raf. 1.c., descr. (Ilex acuminata Willd.; Ilex macoucoua Pers.; Macoucoua guianensis Aubl.). Guiana=Ilex guianensis (Aubl.) O. Kuntze.

cassena Raf. op. cit. 47, descr. (Ilex cassena Michx.; Ilex vomitoria Ait.). North America=Ilex vomitoria Ait.

(I. caroliniana Loesen., non Mill.).
geminata Raf. op. cit. 48, descr. Appalachian Mountains=

heterophyla Raf. 1.c., descr. Alabama, Florida=I. cassine

mucronata Raf. op. cit. 47, descr. Appalachian Mountains. obovata Raf. op. cit. 48, descr. Florida=I. cassine Linn. opaca Raf. op. cit. 47, descr. (Ilex opaca Ait.). Eastern

North America.

ovalis Raf. op. cit. 48, descr. (Paltoria ovalis Ruiz & Pavon; Ilex paltoria Pers.). Peru. palustris Raf. op. cit. 47, descr. (Ilex dahoon Walt.; Ilex cassine Linn.). Carolina=I. cassine Linn.

retusa Raf. op. cit. 46, descr. Western Kentucky. uniflora Raf. op. cit. 47, descr. Alabama. AQUIFOLIUM Mill.—Ilex Linn.

croceum Raf. Sylva Tellur. 44. 1838, nom. [Ilex crocea Thunb.]. South Africa=Elaeodendron croceum (Thunb.) DC. (Celastraceae).

ferox Mill. ex Raf. 1.c., descr. Europe=Ilex aquifolium Linn. heterophylum Raf. 1.c., descr. Europe=Ilex aquifolium Linn. forma heterophylla (Ait.) Loesen.

japonicum Raf. 1.c., nom. [Ilex japonica Thunb.]. Japan=
Mahonia japonica (Thunb.) DC. (Berberidaceae).

lanceolatum Raf. l.c., descr. Germany=Ilex aquifolium Linn. forma bacciflava (West.) Rehd.

planifolium Raf. l.c., descr. Spain=? Ilex perado Ait. undulatum Raf. l.c., descr. Europe=Ilex aquifolium Linn. ARINEMIA Raf. Sylva Tellur. 49. 1838, descr.=Ilex Linn.

lanceolata Raf. I.c., descr. (Prinos lanceolatus Pursh). Carolina=Ilex lanceolata Chapm., non Klotzsch, nec Griseb.=

Ilex laevigata (Pursh) A. Gray.

BRAXYLIS Raf. Sylva Tellur. 51. 1838, descr.=Ilex Linn.
obcordata Raf. 1.c., descr. (Ilex obcordata Sw.). Jamaica.

#DAHUNIA Raf. Sylva Tellur. 46. 1838, descr. subgen. Ageria

Raf.=Ilex Linn.

#EMETILA Raf. Sylva Tellur. 45. 1838, descr. subgen. Ilex Linn. (Type Ilex ramulosa Raf., Cassine ramulosa Raf.) =

\*ramulosa Raf. ex S. Wats. Bibl. Ind. N. Am. Bot. 158, nom. in syn. Louisiana, Florida=Ilex vomitoria Ait.

ENNEPTA Raf. Sylva Tellur. 52. 1838, descr.=Ilex Linn.

atomaria Raf. l.c., nom. [Prinos glaber Linn.]. Eastern United States=Ilex glabra (Linn.) A. Gray.

coriacea Raf. I.c., nom. [Prinos glaber Linn.]. Eastern United States = praec.

myricoides Raf. 1.c., nom. (Prinos glaber Linn.). Eastern United States=praec.

HEXACADICA Raf. Sylva Tellur. 158. 1838, descr. [Hexadica

Lour.]=Ilex Linn. corymbosa Raf. 1.c., descr. (Hexadica [cochinchinensis Lour.]). Indo-China (Annam)=Ilex cochinchinensis Loesen.; see Merr. Trans. Am. Philos. Soc. II. 24(2):

245. 1935. †HEXOTRIA Raf. Am. Monthly Mag. Crit. Rev. 2:265. 1818,

nom. (Prinos lanceolatus Pursh) = Ilex Linn. lanceolata Raf. ex Jacks\*. Ind. Kew. 1:1143. 1893 (Prinos lanceolatus Pursh). Eastern North America=Ilex laevigata (Pursh) A. Gray.

\*HIEROPHYLLUS Raf. Med. Fl. 2:8. 1830, descr., in nota= Ilex Linn.

\*cassine Raf. 1.c., nom. [Ilex cassine Walt.; I. vomitoria Ait.].
Southeastern United States.

ILEX Linn.

\*acuminata Raf. Herb. Raf. 58. 1833, nom. Kentucky (Wasioto Hills).

\*barbara Raf. Sylva Tellur. 45. 1838, nom. sub Cassine [Cassine barbara Linn.]. South Africa=Cassine barbara Linn. (Celastraceae).

\*capensis Raf. 1.c., nom. sub Cassine [Cassine capensis Linn.]. South Africa=Cassine capensis Linn. (Celastraceae).

\*concava Raf. l.c., nom. sub Maurocenia [Cassine concava Lam.]. South Africa=Celastrus lucidus Linn. f. (Celastraceae)

\*dahon Raf. Med. Fl. 2:205. 1830, nom. = seq.

\*dahun Raf. Sylva Tellur. 45. 1838, nom. sub Ageria palus-tris Raf.=Ilex dahoon Walt.=Ilex cassine Linn. Southeastern United States.

\*integrifolia Raf. Herb. Raf. 58. 1833, nom. Appalachian Mountains.

\*levigata Raf. Sylva Tellur. 45. 1838, nom. [Cassine laevigata Lam.]. South Africa=Pterocelastrus rostratus (Thunb.) Walp. (Celastraceae).

\*macucua Raf. op. cit. 46, nom. sub Ageria acuminata Raf. Guiana=Ilex macoucoua Pers.=I. guianensis (Aubl.) O. Kuntze.

\*oleifolia Raf. op. cit. 45, nom. sub Cassine [Cassine oleifolia Pers.]. South Africa=Celastrus oleoides Lam. (Celastraceae).

opaca Ait.; Raf. Med. Fl. 2:7. f. 53. 1830, descr. Eastern United States.

var. acuminata Raf. op. cit. 8, descr.

globosa Raf. 1.c., descr. latifolia Raf. 1.c., descr. macrodon Raf. 1.c., descr.

ramulosa Raf. Sylva Tellur. 45. 1838, descr. (Cassine ramulosa Raf.). Louisiana, Florida. \*retusa Raf. Herb. Raf. 58. 1833, nom. Kentucky.

\*xylocarpa Raf. Sylva Tellur. 45. 1838, descr. (Cassine xylocarpa Vent.). West Indies=Elaeodendron xylocarpum (Vent.) DC. (Celastraceae).

#MACUCUA Raf. Sylva Tellur. 46. 1838, descr. ut subgen. Ageria Raf.=Macucua J. F. Gmel.=Macoucoua Aubl.= Ilex Linn.

\*guianensis Raf. l.c., nom. sub Ageria Raf. Guiana=Macoucoua guianensis Aubl.=Ilex macoucoua Pers.=Ilex guia-

coua guianensis Audi. = liex macoucoua Pers. = liex guianensis (Aubl.) O. Kuntze.

NEMOPANTHES Raf. Jour. Phys. Chim. Hist. Nat. 89:96.
1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 237. 1820, descr.; New Fl. N. Am. 1:25. 1836, nom.; Sylva Tellur.
51. 1838, nom., nota = Nemopanthus Raf. (1818), nom. con-

\*canadensis Raf. Sylva Tellur. 51. 1838, descr. (Ilex canadensis Michx.). Canada (Hudson Bay)=Nemopanthus canadensis DC.=Nemopanthus mucronatus (Linn.) Trel.

\*fascicularis Raf. Am. Monthly Mag. Crit. Rev. 4:357. 1819, descr. (Ilex canadensis Michx.); Jour. Phys. Chim. Hist. Nat., et Isis von Oken, l.c., nom. (Ilex canadensis Michx.); Herb. Raf. 58. 1833, nom.; Sylva Tellur. 51. 1838, descr. New England, New York, Ohio=Nemopanthus mucronatus (Linn.) Trel.

†NEMOPANTHUS Raf. Fl. Ludovic. 167. 1817, nom.; Am. Monthly Mag. Crit. Rev. 2:176. 1818, nom.; op. cit. 4: 357. 1819, descr.; Am. Jour. Sci. 1:188, nom., 191, nom., 377, descr. 1819; Spreng. Neue Entdeck, 2:207. 1821, nom., nota; Isis von Oken 1822, 2:1322. 1822, descr., nom. conserv. (Ilicoides Dum. Cours., 1802).

†fascicularis Raf. Am. Monthly Mag. Crit. Rev. 4:257. 1819, nom. (Ilex canadensis Michx.); Am. Jour. Sci. 1:377. 1819, descr.; Isis von Oken 1822, 2:1322. 1822, descr. (Ilex canadensis Michx.?). Catskill Mountains, New York=

Nemopanthus mucronatus (Linn.) Trel.

#NOTHOLEX Raf. Sylva Tellur. 47. 1838, nom., nota, gen. vel subgen. provis. Ageria Raf. (Type Ilex opaca Ait.)=Ilex Linn.

PRINOS Linn.=Ilex Linn.

longipes Raf. Herb. Raf. 58. 1833, nom.; Sylva Tellur. 50. 1838, descr. Virginia=Nemopanthus mucronatus (Linn.) Trel.

parvifolius Raf. Il.cc., nom., descr. Appalachian Mountains. punctatus Raf. Il.cc., nom., descr. Alleghany Mountains. var. angustifolius Raf. Sylva Tellur. l.c., descr. reticulatus Raf. Sylva Tellur. l.c., descr. Alabama. rugosus Raf. Il.cc., nom., descr. Kentucky. \*triforus Raf. Herb. Raf. 58. 1833, nom. Ohio.

verrucosus Raf. Herb. Raf. et Sylva Tellur. 11.cc., nom., descr. Alleghany Mountains.

#PALTORIA Raf. Sylva Tellur. 46. 1838, descr.. subgen.
Ageria Raf. (Paltoria Ruiz & Pavon, ut gen.)=Ilex Linn.
\*PULTORIA Raf. Fl. Ludovic. 111. 1817, nom. sub Ilex opaca

Ait., sphalm.=Paltoria Ruiz & Pavon=Ilex Linn.

SYNSTIMA Raf. Sylva Tellur. 48. 1838, descr.; Good Book

48. 1840, nom.=Ilex Linn.

acuminata Raf. op. cit. 49, descr. Appalachian and Wasioto Mountains=Ilex ambigua (Michx.) Chapm.

ambigua Raf. ex S. Wats. Bibl. Ind. N. Am. Bot. 1:157.

1878, nom. in syn. [Prinos ambiguus Michx.]. Southeastern United States = seq.

caroliniana Raf. Sylva Tellur 1.c., descr. (Cassine caroliniana Walt.; Prinos ambiguus Michx.). Carolina=Ilex ambigua (Michx.) Chapm.

rotundifolia Raf. l.c., descr. Florida.

TATINA Raf. Aut. Bot. 75. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:93. 1921, nom. Ex descr. = Ilex Linn. parviflora Raf. 1.c., descr.; Pennell, 1.c. nom. Mississippi,

Arkansas.

#### CELASTRACEAE

CASSINE Linn.

\*amulosa Raf. Med. Fl. 2:205. 1830, nom., sphalm.=Cassine ramulosa Raf. Louisiana=Ilex vomitoria Ait. (Aquifoliaceae)

\*colpun Raf. Sylva Tellur. 45. 1838, nom. sub Colpunia Raf. (Cassine colpoon Thunb.). South Africa=Cassine capensis

ramulosa Raf. Fl. Ludovic. 110. 1817, descr. (Cassine Rob. Voy. Louis. 3:513. 1807); Med. Fl. 2:9. 1830, nom.; New Fl. N. Am. 3:95. 1836 [1838], nom. Louisiana=Ilex cas-

ri. N. Am. 3:93. 1636 [1636], nom. Louisiana—nex cassine Walt. (Aquifoliaceae).

CELASTRUS Linn.

acuminatus Raf. New Fl. N. Am. 3:14. 1836 [1838], descr. ("an Celastrus myrtifolius ? L. ad Virg. not Jamaica!").

Appalachian Mountains of Virginia—C. scandens Linn.

#COLUMNA Pof Sulva Tallur 45 1838 descr. sulgen Her.

#COLPUNIA Raf. Sylva Tellur. 45. 1838, descr., subgen. Ilex Raf. (Euonymus colpun [colpoon Linn.]; Cassine colpun [colpoon Thunb.]). South Africa=Cassine Linn.

EUONYMUS Linn.

†acuminatus Raf. Herb. Raf. 51. 1833, nom.; New Fl. N. Am. 3:59. 1836 [1838], descr. Oregon "and Siberia." atropurpureus Jacq.; Raf. New Fl. N. Am. 3:60. 1836 [1838].

Carolina to Kentucky, Missouri and Oregon. var. grandifolius Raf. l.c., descr.

latifolius Raf. I.c., descr.
oblongifolius Raf. 1.c., descr.
\*biflorus Raf. Herb. Raf. 58. 1833, nom. Kentucky.
\*colpun Raf. Sylva Tellur. 45. 1838, nom. sub Colpunia Raf.
South Africa=Euonymus colpoon Linn.=Cassine capensis Linn.

†cuneatus Raf. Herb. Raf. 51. 1833, nom.; New Fl. N. Am. 3:59. 1836 [1838], descr. Oregon.

†heterophylus Raf. op. cit. 58, nom.; New Fl. 1.c., descr.

Appalachian Mountains.

†muricatus Raf. 11.cc., nom., descr. (E. americanus Linn.).

Canada to Carolina. var. biflorus Raf. New Fl. N. Am. 3:60. 1836 [1838],

obliquatus Raf. 1.c., descr. Alleghany Mountains.

EVONYMUS Linn., see Euonymus Linn. #OSTEORAX Raf. Sylva Tellur. 45. 1838, descr., subgen. Ilex Linn. (Type Ilex xylocarpa Raf.; Cassine xylocarpa Vent.)=Elaeodendron Jacq. (1787).

PACHISTIMA Raf. Am. Monthly Mag. Crit. Rev. 2:176. 1818,

ACHISTIMA Rat. Am. Monthly Mag. Crit. Rev. 2:176. 1818, nom. (Ilex myrsinitis Pursh); op. cit. 4:191. 1819, nom. (Ilex myrsinitis Pursh; Myginda myrtifolia Nutt.); Jour. Phys. Chim. Hist. Nat. 89:257. 1819, nom. (Ilex myrsinitis Pursh; Myginda myrtifolia Nutt.) = Paxistima Raf., 1838. myrsinitis Raf. ex Jacks\*. Ind. Kew. 2:397. 1894 (Ilex myrsinitis Pursh). Oregon = Paxistima myrtifolia (Nutt.) Wheeler Am. Mid. Nat. 20:702. 1042

Wheeler, Am. Midl. Nat. 29:793. 1943.

†PACHYSTIMA Raf. ex Endl. Gen. Suppl. 1:1089. 1840, nom. in syn. sub Oreophila Nutt.; op. cit. 1424. 1841, nom. (Oreophila Nutt. 1840, non D. Don. 1830) = seq. \*PAXISTIMA Raf. Sylva Tellur. 42. 1838, descr. (Pachistima

Raf.).

\*myrsinites Raf. l.c., descr. (Ilex myrsinites Pursh; Myginda myrtifolia sensu Hook, Fl. Bor. Am. 1:120. t. 41. 1830). Oregon = Paxistema myrtifolia (Nutt.) Wheeler, Am. Midl. Nat. 29:793. 1943.

#PENTINIUS Raf. New Fl. N. Am. 3:59. 1836 [1838], descr.,

#PENTINIUS Rat. New Fl. N. Am. 3:59. 1836 [1838], descr., subgen. Euonymus Linn. (Type Euonymus muricatus Raf.). 
#PHYSCONDRA Raf. New Fl. N. Am. 3:59. 1836 [1838], descr., subgen. Euonymus Linn. (Type E. atropurpureus Jacq.) = Euonymus Linn. 
#PLATOMESUS Raf. Herb. Raf. 58. 1833, nom., subgen. Euonymus Linn.; New Fl. N. Am. 3:58. 1836 [1838], descr., subgen. Euonymus Linn. (Type Euonymus hetero-bhylus Raf.). phylus Raf.).

SEMARILLA Raf. Sylva Tellur. 146. 1838, descr.=Gymnosporia Benth. & Hook. f. (1862), nom. conserv. (Burglaria Wendl. 1821, nom.; Scytophyllum Eckl., 1835; Encentrus Presl, 1844; Polyacanthus Presl, 1844).

bicolor Raf. 1.c., descr. (Celastrus decolor Delile, Cent. Pl. Afr. Voy. Méroë 2:100. t. 64. 1826). Africa=Gymnosporia senegalensis (Lam.) Loesen.

#TOBIRA Raf. Herb. Raf. 58. 1833, nom. subnud., subgen.

Euonymus Linn. (Euonymus muricatus Raf.); New Fl. N. Am. 3:58. 1836 [1838], descr.=Euonymus Linn.

# HIPPOCRATEACEAE

CURONDIA Raf. Sylva Tellur. 154. 1838, descr.=Christmannia Dennst. (1818) = Salacia Linn.

axillaris Raf. l.c., descr. (Courondi Rheede, Hort. Malabar. 4:103. t. 50. 1673 [1683]). India = Christmannia courondi Dennst. (1818) = Salacia sp.

# STAPHYLEACEAE

HEBOKIA Raf. Alsogr. Am. 47. 1838, descr. = Euscaphis Sieb.

& Zucc. 1835 [1840]. japonica Raf. 1.c., descr. (Sambucus japonica Thunb.). Japan Euscaphis \*japonica (Thunb.) Kanitz. Termész Füzetek **3:**157. 1878.

#### ACERACEAE

ACER Linn. fraxinifolium Raf. New Fl. N. Am. 1:48. 1836, descr. = Acer negundo Linn.

lobatum Raf. 1.c., descr., sub Negundo Moench. Appalachian Mountains=Acer negundo Linn.

palmatum Raf. 1.c., descr., sub Sphendasmus Raf. Oregon. (Lewis & Clark) = Acer macrophyllum Pursh.

trifoliatum Raf. 1.c., descr., sub Negundo. Texas, Arkansas= Acer negundo Linn.

†virgatum Raf. Herb. Raf. 54. 1833, nom.; New Fl. N. Am. 1.c., descr. Northwestern United States (Lewis & Clark) = Acer circinatum Pursh.

\*AKER Raf. New Fl. N. Am. 3:6, 10. 1836 [1838], nom.=

#ANTADENIUM Raf. New Fl. N. Am. 1:49. 1836, descr., subgen. Acer Linn. (Type Acer circinatum Pursh). North America.

#CLINOTROX Raf. New Fl. N. Am. 1:47. 1836, descr., subgen. Acer Linn. (Type Acer rubrum Linn.)=Acer Linn. (Rufacer Small, 1933).

#ERIOCARPUM Raf. New Fl. N. Am. 1:47. 1836, descr. subgen. Acer Linn. (Type Acer dasycarpum Ehrh.) (Ar-

gentacer Small, 1933).

#EVOTRIUM Raf. New Fl. N. Am. 1:47. 1836, descr., subgen. Acer Linn. (Types Acer spicatum Duroi=A. pensylvanicum Linn.; A. spicatum Lam.) = Acer Linn.
NEGUNDIUM Raf. Med. Repos. II. 5:352. 1808, nom.; Jour.

Bot. (Paris) 2:170. 1809, nom.; New Fl. N. Am. 1:48. 1836,

descr.=Acer Linn.

\*fraxineum Raf. Med. Fl. 2:245. 1830, nom.; Loud. Gard. Mag. 8:248. 1832, iter. Schlecht. Linnaea 8: Lit.-Ber. 73. 1833. iter. Britten, Jour. Bot. 38:228. 1900, nom. nov. 1833, iter. Britten, Jour. Bot. 38:228. 1900, nom. nov. Negundium americanum DC. Eastern North America

Acer negundo Linn.

fraxinifolium Raf. Med. Repos. II. 5:352. 1808, nom. nov. Acer negundo Linn.; Jour. Bot. (Paris) 2:170. 1809, nom. (Acer negundo Linn.); A. Gray, Am. Jour. Sci. 40:227. 1841, nom.; Med. Fl. 2:185. 1830, nom.; New Fl. N. Am. 1:48. 1836, descr. North America = Acer negundo Linn.

lobatum Raf. New Fl. N. Am. 1:48. 1836, descr. Appala-

chian Mountains.—Acer negundo Linn.
trifoliatum Raf. Atl. Jour. 1:176. 1833, descr.; Herb. Raf.
21. 1833, descr.; New Fl. N. Am. 1:48. 1836, descr. Texas
and Arkansas—Acer negundo Linn.

#SACHARODENDRON Raf. New Fl. N. Am. 1:47. 1836, descr., subgen. Acer Linn. (Type Acer saccharinum Linn.) = Acer Linn. (Saccharodendron (Raf.) Nieuwl., 1914; Argentacer Small. 1833)

#SPHENDAMUS Raf. New Fl. N. Am. 1:48. 1836, descr., subgen. Acer Linn. (Type Acer macrophyllum Pursh).

# HIPPOCASTANACEAE

AESCULUS Linn.

alba Raf. Alsogr. Am. 69. 1838, descr. (Aesculus \*ohiotensis Lindl. Bot. Reg. 24: t. 51. 1838). North America = Aesculus glabra Willd.

barbata Raf. op. cit. 70, descr. Alabama = A. carnea Hayne. \*florida Bartr. Trav. 401. 1791, descr.; Raf. 1.c., nom., nota. Alabama = ? A. pavia Linn.

\*floridana Bartr. ex Fernald, Rhodora 46:48. 1944, nom.,

nota=praec.

\*hystrix Raf. Alsogr. Am. 69. 1838, descr. Cumberland River =A. octandra Marsh.

levigata Raf. op. cit. 70, descr. Europe=A. carnea Hayne. muricata Raf. op. cit. 68, descr. Lake Erie to Missouri=A. glabra Willd.

ochroleuca Raf. 1.c., descr. Ohio, Kentucky, Tennessee, Illinois=praec.

\*ohiensis Raf. 1.c., nom.=A. ohioensis Michx.=A. glabra Willd. Ohio.

\*stolonifera Raf. Alsogr. Am. 75. 1838, nom. in syn. (Aesculus sp. Bartr. Trav. 395. 1791, descr.). Alabama=A. parviflora Walt.

verrucosa Raf. op. cit. 69, descr. Kentucky=A. glabra Willd. #DIONIXILA Raf. Alsogr. Am. 72. 1838, sub Pavia punctata Raf. nom. nov. provis., subgen. Pavia Mill.=Aesculus Linn.

ESCULUS Linn. = Aesculus Linn.

\*hipocastanea Raf. Med. Fl. 2:219. 1830, nom., nota=

Aesculus hippocastanum Linn. Asia Minor.

#FLAVARIA Raf. Alsogr. Am. 73. 1838, nom. provis., subgen. Pavia Mill. (Type, Pavia flava Moench) = Aesculus Linn.

HIPPOCASTANUM Mill.=Aesculus Linn.

barbatum Raf. ex Jacks\*. Ind. Kew. 1:1163. 1893 (Aesculus barbata Raf.). Alabama=Aesculus carnea Hayne.

carneum Raf. ex Jacks\*. 1.c. (Aesculus carnea Hayne). Eastern North America = Aesculus \*carnea Hayne, Abbild. Fremd. Holzart, 25: t. 22. 1822; Wats. Dendr. Brit. 2: t. 121. 1825.

levigatum Raf. ex Jacks\*. 1.c. (Aesculus levigata Raf.). Europe=A. carnea Hayne.

rubicundum Raf. ex Jacks\*. l.c. (Aesculus rubicunda Lodd.). Eastern North America = Aesculus carnea Hayne.

MACROTHYRSUS Spach = Aesculus Linn.

odorata Raf. Alsogr. Am. 75. 1838, descr. (Aesculus sp. Bartram, Travels 395. 1791, descr.). Florida=A. parviflora Walt.

NEBROPSIS Raf. Alsogr. Am. 68. 1838, descr.; Good Book 49. 1840, nom.=Aesculus Linn.

alba Raf. Alsogr. Am. 69. 1838, nom. alt. Aesculus alba Raf. =seq

glabra Raf. 1.c., nom. alt. Aesculus glabra Willd.

\*hystrix Raf. l.c., nom. alt. Aesculus hystrix Raf.  $\pm$  A. octandra Marsh.

muricata Raf. op. cit. 68, nom. alt. Aesculus muricata Raf. =A. glabra Willd.

neglecta Raf. op. cit. 70, nom. alt. Aesculus neglecta Lindl. ochroleuca Raf. op. cit. 68, nom. alt. Aesculus ochroleuca Raf. = A. glabra Willd.

pallida Raf. op. cit. 69, nom. alt. Aesculus pallida Willd.=
A. glabra Willd. f. pallida (Willd.) Hort. ex Schelle.

verrucosa Raf. 1.c., nom. alt. Aesculus verrucosa Raf.=A. glabra Willd.

0Z0TIS Raf. Alsogr. Am. 71. 1838, descr.; Good Book 48. 1840, nom.=Aesculus Linn.

trifoliata Raf. l.c., descr. Arkansas.

PAVIA Mill. = Aesculus Linn. arguta Raf. Alsogr. Am. 74. 1838, descr. (Aesculus pavia Linn. var. arguta Lindl. Bot. Reg. 12: t. 993. 1826). Europe (cult.).

\*axillata Raf. Western Minerva 41. 1821, nom., iter. Fox, Sci. II. 12:212. 1900 (Pavia pallida Raf.). Kentucky= Aesculus glabra Willd.

bicolor Raf. Alsogr. Am. 74. 1838, descr. Ohio to Missouri=

Aesculus octandra Marsh. \*echinata Raf. First Cat. Bot. Gard. Transylv. Univ. 12.

1824, nom. Kentucky. fulva Raf. Alsogr. Am. 74. 1838, descr. Alabama.

glauca Raf. op. cit. 71, descr. Florida.

\*hystrix Raf. First Cat. Bot. Gard. Transylv. Univ. 12. 1824, nom.; Herb. Raf. 56. 1833, nom. subnud. Cumberland Mountains=Aesculus octandra Marsh. longiflora Raf. Alsogr. Am. 72. 1838, descr. Maryland to

Carolina = Aesculus pavia Linn.

mollis Raf. op. cit. 71, descr. Arkansas = Aesculus discolor

Pursh, var. mollis (Raf.) Sarg.

\*muricata Raf. Western Rev. Miscel. Mag. 2:94. 1819, nom. Kentucky=Aesculus glabra Willd.

\*ocroleuca Raf. Herb. Raf. 56. 1833, nom. Kentucky=seq.

\*ochroleuca Raf. Western Minerva 41. 1821, nom., iter. Fox, Science II. 12:212. 1900 (P. pallida Raf.). Kentucky= Aesculus glabra Willd.

\*pallida Raf. First Cat. Bot. Gard. Transylv. Univ. 12. 1824,

nom. Kentucky=praec.

parviflora Raf. Alsogr. Am. 73. 1838, descr. Carolina to Florida.

punctata Raf. op. cit. 72, descr. North Carolina, Georgia, Alabama.

reticulata Raf. op. cit. 73, descr., nom. nov. provis. Pavia flava Moench [Aesculus flava Ait.]. Eastern North America= Aesculus octandra Marsh.

PAVIANA Raf. Fl. Ludovic. 87, 1817, nom. (Pavia Boerh. [Mill.]); Am. Monthly Mag. Crit. Rev. 4:192. 1819, nom. nov. provis. Pavia Boerh. [Mill.] = Aesculus Linn.

coccinea Raf. Fl. Ludovic. I.c., nom. nov. Aesculus pavia Linn. (Pavia à fleurs rouges Rob. Voy. Louis. 3:470. 1807). Louisiana = Aesculus pavia Linn.

flava Raf. l.c., descr. (Pavia à fleurs jaunes Rob. l.c.; Aesculus flava Ait.). Florida=Aesculus octandra Marsh.

### SAPINDACEAE

BONANNIA Raf. Specch. Sci. 1:115. 1814, descr.=Blighia Koenig (1806).

nitida Raf. op. cit. 116, descr. West Africa, West Indies (cult.) = Blighia sapida Koenig.

SAPINDUS Linn.

acuminata Raf. New Fl. N. Am. 3:22. 1836 [1838], descr. (Sapindus saponaria sensu Ell.). Carolina, Alabama, Florida = Sapindus marginatus Willd. falcata Raf. Med. Fl. 2:261. 1830, descr.; Herb. Raf. 56.

1833, nom. Florida = praec.

# BALSAMINACEAE

BALSAMINA Scop. = Impatiens Linn.

\*triflora Raf. ex M'Murtrie, Sketch. Louisv. 214. 1819, nom. Kentucky.

montana Raf. Atl. Jour. 1:153. 1832, descr. Alleghany Mountains=? I. biflora Walt.

\*su[1]phurea Raf. ex M'Murtrie, Sketch. Louisv. 219. 1819, nom. Kentucky. Prob.=I. pallida Nutt.
\*NOLITANGERE Raf. Herb. Raf. 68. 1833, nom.=Impatiens

\*montana Raf. 1.c., nom. Alleghany Mountains=Impatiens montana Raf.=? I. biflora Walt.

# RHAMNACEAE

AFARCA Raf. Sylva Tellur. 30. 1838, descr.; Good Book 48. 1840, nom.=Sageretia Brongn. (1827).

parviflora Raf. 1.c., descr. (Rhamnus minutiflora Michx.). Southeastern United States = Sageretia minutiflora (Michx.) Trelease.

ALATERNUS Mill.=Rhamnus Linn.

cordatus Raf. Sylva Tellur. 27. 1838, descr. Italy.

glandulosus Raf. ex Jacks\*. Ind. Kew. 1:71. 1893 (Rhamnus glandulosa Ait.). Canary Islands.

hybridus Raf. ex Jacks\*. 1.c. (Rhamnus hybrida L'Hérit.).

integrifolius Raf. Sylva Tellur. 27. 1838, descr. Spain. lanceolatus Raf. l.c., descr. (Rhamnus alaternus Linn.). Southern Europe.

ovatus Raf. 1.c., descr. (Rhamnus alaternus Linn. var. latifolius Pers.). Southern Europe.

princides Raf. ex Jacks\*. 1.c. (Rhamnus princides L'Hérit.). South Africa.

pumilus Raf. ex Jacks\*. 1.c. (Rhamnus pumila Linn.). Europe. \*AMPELOPLIA Raf. Sylva Tellur. 175. 1838, nom., in indice=

AMPELOPLIS Raf. Sylva Tellur. 33. 1838, descr. = Sageretia

Brongn. (1827). chinensis Raf. 1.c., descr. (Rhamnus theezans Linn.). Southeastern China=Sageretia theezans (Linn.) Brongn.

ATADINUS Raf. Sylva Tellur. 30. 1838, descr.=Rhamnus Linn.

alpinus Raf. 1.c., nom. (Rhamnus alpina Linn.). Europe, North Africa.

ATULANDRA Raf. Sylva Tellur. 31. 1838, descr.=Rhamnus

Linn. arragonensis Raf. l.c., descr. (Rhamnus aragonensis Asso). Northern Spain=Rhamnus lycioides Linn.

valentina Raf. 1.c., descr. (Rhamnus valentina Willd.; Rhamnus pumila sensu Cav.). Eastern Spain=Rhamnus \*pumila Turra, Giorn. Ital. 1:120. 1765.

BERCHEMIA Neck.

repanda Raf. Sylva Tellur. 33. 1838, descr. [Berchemia volubilis DC.]. Carolina to Louisiana = Berchemia \*scandens (Hill) K. Koch, Dendr. 1:602. 1869; Trel. (1889).

undulata Raf. l.c., descr. (Rhamnus volubilis Linn. f.; Berchemia volubilis DC., Rhamnus scandens Hill, Hort. Kew. 453. t. 20. 1769). Pennsylvania to Virginia=Berchemia scandens (Hill) K. Koch.

BLEPETALON Raf. Sylva Tellur. 30. 1838, descr.=Scutia Commers. (1827), nom. conserv. (Adolia Lam., 1783).

aculeatum Raf. 1.c., descr. (Rhamnus circumscissa Linn. f.). India = Scutia myrtina (Burm. f.) Kurz (S. circumscissa Linn. f.; S. indica Brongn.; S. commersonii Brongn.).

CANOTHUS Raf. Med. Repos. II. 5:360. 1808, nom., sphalm.= Ceanothus Linn.

\*herbaceus Raf. l.c., descr. Maryland, Virginia, "falls of the Potowmack" = Ceanothus herbaceus Raf. = C. ovatus Desf.

†CARDIOLEPIS Raf. First Cat. Bot. Gard. Transylv. Univ. 12. 1824, nom.; Neogen. 1. 1825, descr. (Rhamnus lanceolata Pursh); Sylva Tellur. 28. 1838, descr.; Good Book 48. 1840, nom. nom. Wallr. (1822) = Rhamnus Linn.

†nigra Raf. First Cat. I.c., nom.; Neogen I.c., descr., Sylva Tellur. I.c., descr.; Herb. Raf. 57. 1833, nom. Kentucky= Rhamnus lanceolata Pursh.

obtusa Raf. Sylva Tellur. 28. 1838, descr. (Rhamnus alnifolia

obtusa Rat. Sylva Tellur. 26. 1636, descr. (Rhummus tamjonu sensu Pursh; Rhamnus purshiana DC.). Missouri and Oregon=R. purshiana DC.
†rubra Raf. First Cat. Bot. Gard. Transylv. Univ. 12. 1824, nom.; Neogen 1. 1825, descr.; Herb. Raf. 57. 1833, nom.; Sylva Tellur. 28. 1838, descr. Kentucky=Rhamnus lanceolata Pursh.

†spinosa Raf. First Cat. 1.c., nom.; Neogen. 1.c., descr.; Herb. Raf. 1.c., nom.; Sylva Tellur. 1.c., descr. Kentucky.

CEANOTHUS Linn.

atropurpureus Raf. New Fl. N. Am. 3:56. 1836 [1838], descr. Florida.

\*bicolor Raf. op. cit. 57, descr. (Ceanothus thyrsiflorus Eschw.). Northwestern United States.

\*cordifolius Raf. Herb. Raf. 63. 1833, nom. Kentucky or

†ellipticus Raf. op. cit. 65, nom.; New Fl. N. Am. 3:56. 1836 [1838], descr. Appalachian Mountains of Georgia and Alabama.

glandulosus Raf. New Fl. N. Am. 3:57. 1836 [1838], descr. (Ceanothus ovalis Bigelow; C. ovatus hort. ex Lindl.; C. intermedius Hook.; Forrestia thyrsoides Raf., fide Raf. 1.c.). Near Lake Champlain=C. ovatus Desf.

glomeratus Raf. op. cit. 55, descr. (C. americanus sensu Ell.). Virginia to Alabama, Kentucky and Tennessee=C. ameri-

canus Linn.

var. fuscatus Raf. 1.c., descr. †herbaceus Raf. Jour. Bot. (Paris) 1:227. 1809, nom.; Am. Monthly Mag. Crit. Rev. 2:174, 176. 1818, nom. (Canothus herbaceus Raf.; Ceanothus perennis Pursh); op cit. 3:101. 1818, nom., sphalm. "herbaceous"; op. cit. 4:191. 1819, nom. (C. perennis Pursh); Jour. Phys. Chim. Hist. Nat. 89:258. 1819, nom. (C. perennis Pursh); New Fl. N. Am. 3:55. 1836 [1838], descr. (C. perennis Pursh). Virginia and Carolina = Ceanothus americanus Linn.

latifolius Raf. New Fl. N. Am. 3:55. 1836 [1838], descr. (Ceanothus americanus Linn. var. tardiflorus Eaton, Man. ed. 6, 85. 1833). Western Kentucky and Tennessee=C.

americanus Linn.

levigatus Raf. 1.c., nom. alt. C. herbaceus Raf. Eastern North

America=C. ovatus Desf.
officinalis Raf. Med. Fl. 2:205. 1830, nom., nota (C. americanus Linn.); New Fl. N. Am. 3:54. 1836 [1838], descr. (C. americanus Linn.). Canada to Alabama and Louisiana = C. americanus Linn.

var. acutus Raf., 1.c., descr. foliosus Raf. op. cit. 55, descr. ovatus Raf. op. cit. 54, descr. paniculatus Raf. op. cit. 55, descr.

virgatus Raf. New Fl. N. Am. 3:56, 1836 [1838], descr. (Ceanothus intermedius Pursh). Virginia to Florida=C. intermedius Pursh.

\*CENOTHUS Raf. Med. Repos. II. 5:351, 1808, nom. = Ceanothus Linn.

DECORIMA Raf. Sylva Tellur. 31. 1838, descr.=Karwinskia Zucc. (1832).

trinervis Raf. 1.c., descr. (Rhamnus trinervius Cav.). Philippines=Zizyphus trinervis (Cav.) Poir.

umbellata Raf. 1.c., descr. (Rhamnus umbellata Mexico=Karwinskia umbellata (Cav.) Schlecht. umbellata Cav.).

DIPLISCA Raf. Sylva Tellur. 31. 1838, descr. = Colubrina L. C. Rich. (1827), nom. conserv. (Marcorella Neck., 1790; Tubanthera Comm. (1825).

elliptica Raf. l.c., descr. (Rhamnus elliptica Sw.); Ceanothus reclinatus L'Hérit.). West Indies=Colubrina reclinata (L'Hérit) Brongn.

†ENDOTROPIS Raf. Neogen. 1. 1825, nom. alt. Cardiolepis Raf.; Sylva Tellur. 31. 1838, descr.=Rhamnus Linn.

oleifera Raf. ex Jacks\*. Ind. Kew. 1:840. 1893, sphalm.=seq. \*oleifolia Raf. Sylva Tellur. 31. 1838, descr. (Rhamus oleifolia Hook. Fl. Bor. Am. 1:123. t. 44. 1830) Oregon= Rhamnus californica Eschsch.

FORGERUXIA Raf. Sylva Tellur. 32. 1838, descr. = Forgerouxa Neck.=Rhamnus Linn.

\*repens Raf. 1.c., descr. (Rhamnus pumila auct.; R. rupestris Scop.). Europe=Rhamnus rupestris Scop.

FORGEROUXA Neck.=Rhamnus Linn.

repens Raf. ex Jacks\*. Ind. Kew. 1:972. 1893 (Forgeruxia repens Raf.). Europe=Rhamnus rupestris Scop.

FORRESTIA Raf. Med. Repos. II. 3:422. 1806, descr.= Ceanothus Linn.

\*thyrioides Raf. op. cit. II. 5:351. 1808, nom., nota; Jour. Bot. (Paris) 2:168. 1809, nom., nota; A. Gray, Am. Jour. Sci. 40:227. 1841, nom. New York. Prob.=Ceanothus americanus Linn.

\*thyroides Raf. op. cit. II. 3:422. 1806, nom. New York. Prob.=praec.

†thyrsoides Raf. New Fl. N. Am. 3:57. 1836 [1838], nom., nota, sub Ceanothus glandulosus Raf.=praec.

FRANGULA Mill.=Rhamnus Linn.

fragilis Raf. Fl. Ludovic. 97. 1817, descr. (Salicaire Rob. Tellur. 27. 1838, descr.; New Fl. N. Am. 3:95. 1836 [1837], Louisiana=Rhamnus caroliniana Walt.

\*latifolia Raf. Sylva Tellur. 27. 1838, nom. (Rhamnus latifolia Raf. Sylva Tellur. 27. 1838, nom.)

folia L'Hérit.). Azores. \*rupestris Raf. Western Minerva 41. 1821, nom. nov. Rham-

nus lanceolata Pursh. North America.
\*GIRTANERIA Raf. Good Book 48. 1840, nom.=seq.
GIRTANNERIA Neck.; Raf. Sylva Tellur. 28. 1838, descr.= Rhamnus Linn.

alnifolia Raf. 1.c., descr. (Rhamnus alnifolia L'Hérit. Sert. Angl. 5. t. 42. 1788). Hudson Bay. and "Missouri." franguloides Raf. 1.c., descr. (Rhamnus franguloides Michx.). Lake Champlain=R. alnifolia L'Hérit.

\*GUANIA Raf. Sylva Tellur. 154. 1838, nom. sub Ledelia Raf.; Tul. Ann. Sci. Nat. IV. Bot. 8:129. 1857=Gouania Jacq. (1762)

\*HETHINGERIA Raf. Sylva Tellur. 33. 1838, descr., sphalm.=

Hettlingeria Neck .= Rhamnus Linn.

\*HYPOMA Raf. New Fl. N. Am. 3:54. 1836 [1838], nom., nota (sp. afr. Ceanothus [C. africanus Linn.]=Noltea Reichb. (1828).

LEDELIA Raf. Sylva Tellur. 154. 1838, descr.=Pomaderris Labill. (1804).

betulina Raf. l.c., descr. (Pomaderris betulina A. Cunn.; Hook. Bot. Mag. 60 t. 3212. 1833). Australia. LITHOPLIS Raf. Sylva Tellur. 32. 1838, descr.=Rhamnus

saxatilis Raf. 1.c., nom. (Rhamnus saxatilis Jacq.; Frangula

saxatilis Cramer). Southern Europe.

MARCORELLA Neck. (1790) = Colubrina L. C. Rich. (1827),

nom. conserv. (Marcorella Neck., 1790; Tubanthera Comm.,

colubrina Raf. Sylva Tellur. 31. 1838, nom. (Rhamnus colubrina Jacq.). West Indies=Colubrina ferruginosa Brongn. cubensis Raf. 1.c., nom. (Rhamnus cubensis Jacq.). Cuba= Colubrina cubensis (Jacq.) Brongn.

MYSTACINUS Raf. Sylva Tellur. 30. 1838, descr.=Helinus E. Mey. (1840), nom. conserv. (Mystacinus Raf., 1838).

cirrhiferus Raf. 1.c., nom. (Rhamnus mystacinus Ait.). Tropi-

cal Africa=Helinus mystacinus (Ait.) E. Mey.

OENOPLIA Roem. & Schult. (1819); Raf. Sylva Tellur. 30. 1838, descr. = Oenoplea Hedw. f. (1806) = Berchemia Neck.

(1790).

\*lineata Raf. 1.c., descr. (Rhamnus lineata Linn.; Zizyphus lineata Willd.). China=Berchemia lineata (Linn.) DC. PERFONON Raf. Sylva Tellur. 29. 1838, descr.; Good Book 48.

1840, nom.=Rhamnus Linn. ferrugineum Raf. 1.c., descr. (Rhamnus ferruginea Nutt.).

Florida=Colubrina ferruginosa Brongn.

laurifolium Raf. 1.c., descr. "Origon [Rocky] Mountains," cult. Philadelphia=Rhamnus purshiana DC.

RHAMNUS Linn.

\*rupestris Raf. Herb. Raf. 58. 1833, nom. Alleghany Mountains.

\*theizans Raf. Sylva Tellur. 33. 1838, nom., sphalm.=R. theezans Linn. = Sageretia theezans (Linn.) Brongn. China.

SARCOMPHALUS P. Browne; Raf. Sylva Tellur. 29. 1838, descr.

carolinianus Raf. op. cit. 29 1.c., nom. (Rhamnus caroliniana Walt.). Southeastern United States=Rhamnus caroliniana Walt.

greeus Raf. op. cit. 30, descr. (Rhamnus pubescens Sibth. & Sm. Fl. Graec. 3:33. t. 239. 1819). Greece=Rhamnus sibthorpiana Roem. & Schult.

levigatus Raf. op. cit. 29 nom. (Rhamnus laevigata Vahl). West Indies=Reynosia laevigata (Vahl) Sarg.

mauritianus Raf. 1.c., nom. (Rhamnus mauritiania Soyer-Willem.). Tropical Asia—Zizyphus mauritiana Lam. (Z. jujuba Lam., 1789, non Mill., 1768). prunifolius Raf. l.c., non. (Rhamnus prunifolia Sibth. & Sm.).

Greece.

retusus Raf. 1.c., nom. (Rhamnus sarcomphalus Linn.). West Indies (Sarcomphalus laurinus Griseb., 1864)

shortianus Raf. 1.c., descr. (Rhamnus shortii Nutt.). Kentucky=Rhamnus lanceolata Pursh.

\*TRICHROA Raf. Herb. Raf. 51. 1833, nom., nota, aff. Cardiolepis Raf .= Rhamnus Linn.

\*laurifolia Raf. l.c., nom. Rocky Mountains or Oregon.

TUBANTHERA Comm.; Raf. Sylva Tellur. 154. 1838, descr.=
Colubrina L. C. Rich. (1827), nom. conserv. (Marcorella Neck.; 1790; Tubanthera Comm., 1825).
katapa Raf. l.c., descr. (Katapa Rheede, Hort. Malabar. 5:93. t. 47. 1685). India=Colubrina asiatica (Linn.)

Brongn.

## VITACEAE

#AGLOBULIA Raf. Med. Fl. 2:134. 1830, descr., iter. Am. Man. Grape Vines 18. 1830, sect. Vitis Linn. (Type Vitis virginiana Poir.)=Vitis Linn.

ALLOSAMPELA Raf. Med. Fl. 2:122. 1830, descr., iter. Am. Man. Grape Vines 6. 1830; Sylva Tellur. 88. 1838, descr. = Ampelopsis Michx. (1803).

heterophyla Raf. Sylva Tellur. 1.c., descr. (Vitis heterophylla Thunb.). Japan=Ampelopsis heterophylla Sieb. & Zucc., non Blume=A. brevipedunculata (Max.) Koehne var. maximowiczii (Regel) Rehder.

AMPELOPSIS Michx.

cordifolia Raf. Med. Fl. 2:122. 1830, nom.; Am. Man. Grape
Vines 6. 1830, nom.; Sylva Tellur. 88. 1838, nom. [Ampelopsis cordata Michx.]. Virginia to Nebraska, Florida and Texas=Ampelopsis cordata Michx.

CAUSONIA Raf. Sylva Tellur. 87. 1838, descr.=Cayratia Juss. (1818), nom. conserv. (Columella Lour., 1790; Lagenula Lour., 1790 [Causonis Raf., 1830; Causonia Raf., 1838;

Pedastis Raf., 1838]).
\*japonica Raf. 1.c., nom. (Vitis japonica Thunb.; jabonica Willd.). Japan=Cayratia japonica (Thunb.)

Gagnep.

CAUSONIS Raf. Med. Fl. 2:122. 1830, descr., iter. Am. Man. Grape Vines 6. 1830=Causonia Raf. (1838)=Cayratia Juss. (1818), nom. conserv. (Columella Lour., 1790; Lagenula Lour., 1790).

japonica Raf. ex Jacks\*. Ind. Kew. 1:463. 1893 (Vitis japonica Thunb.). Japan=Cayratia japonica (Thunb.)

Gagnep.

trifolia Raf. ex Jacks\*. 1.c. (Vitis trifolia Linn.). India= Cayratia trifolia (Linn.) Domin.

#FRONDARANIA Raf. Med. Fl. 2:124. 1830, descr.; iter. Am.

Man. Grape Vines 8. 1830, series Vitis Linn. (Type Vitis fulva Raf.)=Vitis Linn.

GONOLOMA Raf. Sylva Tellur. 86. 1838, descr.=Cissus Linn. alata Raf. 1.c., nom. (Cissus trifoliata sensu Jacq. [C. alata Lam.]). Tropical America=Cissus rhombifolia Vahl.

#HYPOLEIA Raf. Med. Fl. 2:132. 1830, descr.; Am. Man. Grape Vines 16. 1830, descr., sect. Vitis Linn. (Type Vitis odoratissima Donn) = Vitis Linn.

IRSIOLA P. Browne; Raf. Sylva Tellur. 86. 1838, descr.= Cissus Linn.

sicyoides Raf. 1.c., nom. (Cissus sicyoides Linn.). Tropical America.

KEMOXIS Raf. Sylva Tellur. 86. 1838, descr. = Cissus Linn. acida Raf. l.c., nom. (Cissus acida Linn.). West Indies.

#LASIPIA Raf. Med. Fl. 2:129. 1830, descr., iter. Am. Man. Grape Vines 13. 1830, series Vitis Linn. (Type Vitis dimidiata Raf.)=Vitis Linn.

\*LEANIA Raf. Fl. Tellur. 1:86. 1836 [1837], nom. nov. Lea Stokes (Leea Linn.) = Leea Linn.

LEEANIA Raf. Princ. Somiol. 30. 1814, nom. nov. Leea Linn. NEKEMIAS Raf. Sylva Tellur. 87. 1838, descr.=Ampelopsis

Michx. (1803). bipinnata Raf. 1.c., descr. (Hedera bipinnata Walt.; Ampelop-

sis bipinnata Michx.; Cissus bipinnata Ell.; Cissus stans Pers.; Vitis arborea Linn.). Carolina to Louisiana=Ampelopsis arborea (Linn.) Koehne (1893); Rusby (1894).

PEDASTIS Raf. Sylva Tellur. 87. 1838, descr. = Cayratia Juss. (1818), nom. conserv. (Columella Lour., 1790; Lagenula Lour., 1790).

indica Raf. l.c., nom. (Cissus pedata Lam.). India=Cayratia pedata (Lam.) Gagnep.

QUINARIA Raf. Med. Fl. 2:122. 1830, descr.; op. cit. 256, nom., nota; Am. Man. Grape Vines 6. 1830, descr.; Loud. Gard. Mag. 8:246. 1832, nom., nota, iter. Schlecht. Linnaea 8: Lit.-Ber. 69. 1833, iter. Britten, Jour. Bot. 38: 226. 1900; Sylva Tellur. 87. 1838, descr., non Quinaria Lour. (1790) = Parthenocissus Planch. (1887), nom. conserv. (Psedera Neck. 1790; Quinaria Raf., 1830).

QUINARIA (continued).
hederacea Raf. Med. Fl. 2:122. 1830, nom. (Ampelopsis quinquefolia Michx.), op. cit. 256, nom., nota; Am. Man. Grape Vines 6. 1830, nom.; Sylva Tellur. 87. 1838, nom. (Hedera quinquefolia Linn.; Vitis quinquefolia Lam.; Ampelopsis quinquefolia Michx.). Eastern North America Parthenocissus quinquefolia (Linn.) Planch. hirsuta Raf. Med. Fl. 2:122. 1830, nom.; Am. Man. Grape Vines 6. 1830, nom.; Sylva Tellur. 87. 1838, nom. (Hedera quinquefolia Linn.; Vitis quinquefolia Lam.; Cissus quinquefolia Desf. "var."). Eastern North America=

Parthenocissus quinquefolia (Linn.) Planch, var. hirsuta (Pursh) Planch. japonica Raf. Sylva Tellur. 87. 1838, nom. (Vitis pentaphylla

Thunb.). Japan=Gynostemma pentaphyllum (Thunb.) Makino (Cucurbitaceae).

RINXOSTYLIS Raf. Sylva Tellur. 87. 1838, descr.=Cissus Linn. repanda Raf. 1.c., nom. (Cissus repanda Vahl). India.

\*SOELANTHUS Raf. Sylva Tellur. 86. 1838, nom.=Saelanthus

Forsk.=Cissus Linn. \*rotundifolius Raf. op. cit. 87, nom. (Saelanthus rotundifolius Forsk.). Arabia=Cissus rotundifolius (Forsk.) Vahl.

\*tetragonus Raf. 1.c., nom. [Saelanthus quadrigonus Forsk.]. Arabia=Cissus quadrangularis Linn.

VITIS Linn.

acerifolia Raf. Med. Fl. 2:130. t. 99. f. C. 1830, descr., iter. Am. Man. Grape Vines 14. f. C. 1830. "Oregon mountains" [Rocky Mountains or near them, Long expedition]. (Vitis longii Prince, 1830); see Rehder, Jour. Arnold Arb. 27:172.

amara Raf. op. cit. 132; 16, descr. Pennsylvania, near Philadelphia. Arkansas and Texas=V. rotundifolia Michx.

apiana Raf. op. cit. 140; 24, descr. Europe=Vitis vinifera Linn.

var. alba Raf. 11.cc., nom. parvifolia Raf. 11.cc., nom. rosea Raf. 11.cc., nom.

\*arachnoidea Raf. Am. Monthly Mag. Crit. Rev. 2:122. 1817, nom. New York.

bicolor Raf. Med. Fl. 2:140. 1830, descr., iter. Am. Man. Grape Vines 24. 1830. Europe=Vitis vinifera Linn.

bifida Raf. op. cit. 128; 12, descr. Pennsylvania to Kentucky. blanda Raf. 11.cc. t. 100 f. H.; 12. f. H. Pennsylvania to Louisiana.

var. arenaria Raf. op. cit. 129; 13, descr. Louisiana, Arkansas.

caroliniana Raf. 11.cc., nom. Carolina. flava Raf. 11.cc., descr. heteroloba Raf. 11.cc., descr. Ohio. viridis Raf. ll.cc. New York.

bracteata Raf. op. cit. 125; 9, descr. (Vitis labrusca sensu Walt.; V. aestivalis sensu Ell.). Carolina to Florida.

callosa Raf. Il.cc., descr. Canada to Pennsylvania. cana Raf. op. cit. 140; 24, descr. Europe=Vitis vinifera Linn. canina Raf. op. cit. 127; 11, descr. Pennsylvania to Virginia= V. labrusca Linn.

ciliata Raf. op. cit. 129. t. 100. f. E.; 13. f. E., descr. New Tersev.

columbina Raf. op. cit. 131; 15, descr. New York to Loui-

concolor Raf. op. cit. 130; 14, descr. New York to Missouri. corinthiaca Raf. op. cit. 141; 25, descr. Greece = Vitis vinifera

cylindrica Raf. 11.cc., 141; 25, descr. Europe=Vitis vinifera Linn.

var. incurva Raf. 11.cc., descr.

†denticulata Raf. Am. Monthly Mag. Crit. Rev. 2:123. 1817, nom.; Ann. Nat. Ann. Synop. 11. 1820, descr. New York. digitata Raf. Med. Fl. 2:125. 1830, descr., iter. Am. Man. Grape Vines 9. 1830. Virginia, Carolina.

dimidiata Raf. op. cit. 129; 13, descr. Pennsylvania to

Louisiana

\*estivalis Raf. op. cit. 125; 9, nom. in syn.=Vitis aestivalis

farinosa Raf. op. cit. 140; 24, descr. Europe=Vitis vinifera Linn.

ferruginea Raf. op. cit. 128; 12, descr. Pennsylvania to Kentucky.

floridana Raf. op. cit. 133; 17, nom. alt. Vitis peltata Raf.

\*fragrans Raf. Am. Monthly Mag. Crit. Rev. 2:122. 1817, nom. New York.

fulva Raf. Med. Fl. 2:124. 1830, descr., iter. Am. Man. Grape

Vines 8. 1830. Canada to Virginia. var. corallina Raf. Il.cc., descr. Virginia. quinqueloba Raf. Il.cc., descr. sinuata Raf. Il.cc., descr.

glareosa Raf. op. cit. 126; 10, descr. Illinois to Florida. glomerata Raf. op. cit. 142; 26, descr. Cuba, Hayti. †hyemalis Raf. Am. Monthly Mag. Crit. Rev. 2:122. 1817, nom. (sphalm. hyematis); Med. Fl. 2:125. 1830, descr., iter. Am. Man. Grape Vines 9. 1830. Canada to Virginia and Ohio.

integrifolia Raf. Fl. Ludovic. 89. 1817, descr. (Vitis Rob. Voy. Louis. 3:476. 1807); Med. Fl. 2:134. 1830, descr., iter. Am. Man. Grape Vines 18. 1830. Louisiana.

labruscoides Muhl. Cat. 27. 1813, nom.; Raf. Med. Fl. 2:127. 1830, descr., iter. Am. Man. Grape Vines 11. 1830. New York to Virginia.

var. major Raf. 11.cc., descr. New York. precox Raf. 11.cc., descr. Virginia. pulposa Raf. Il.cc., descr. serotina Raf. 11.cc., descr.

laciniosa Linn.; Raf. op. cit. 141; 25, descr. Europe=Vitis vinifera Linn.

var. dissecta Raf. Il.cc., nom.

grandifolia Raf. Il.cc., nom.
latifolia Raf. op. cit. 126; 10, descr. Canada to Florida and Louisiana=V. labrusca Linn.

var. alba Raf. Il.cc., descr. nigra Raf. Il.cc., descr. pruniformis Raf. Il.cc., descr. rubra Raf. 11.cc., descr.

\*lobata Raf. Am. Monthly Mag. Crit. Rev. 2:122. 1817, nom. New York.

Am. Man. Grape Vines 13. f. B. 1830. Arkansas and Texas. luteola Raf. op. cit. 127; 11, descr. Pennsylvania=V. labrusca

Linn. maritima Raf. op. cit. 142; 26, descr. Jamaica, Yucatan. maura Raf. op. cit. 141; 25, descr. North Africa=Vitis vinifera Linn.

\*membranacea Raf. Am. Monthly Mag. Crit. Rev. 2:123. 1817, nom. New York. montana Raf. Med. Fl. 2:130. 1830, descr., iter. Am. Man. Grape Vines 14. 1830. Alleghany Mountains, New York to Carolina.

\*mucronata Raf. Am. Monthly Mag. Crit. Rev. 2:123. 1817, nom. New York.

\*multislora Raf. Med. Fl. 2: t. 100. f. G, sphalm.=seq. multisloba Raf. Med. Fl. 2:125. 1830, descr., iter. Am. Man. Grape Vines f. G. Red River, Arkansas-Louisiana, cult., Philadelphia.

muscadina Raf. op. cit. 132; descr., nom. nov. Vitis vulpina Linn. (Vitis incisa Jacq.; V. rotundifolia Michx.). Virginia to Florida and Texas=V. rotundifolia Michx.

obliqua Raf. op. cit. 128; 12, descr. Arkansas River and the Rocky Mountains.

obovata Raf. op. cit. 135; 19, descr. Pennsylvania to Virginia. var. nigra Raf. 11.cc., descr. pallida Raf. 11.cc., descr.

prunoides Raf. Il.cc., descr. rupestris Raf. 11.cc., descr.

odoratissima Donn

var. alba Raf. op. cit. 132; 16, descr. New York. atropurpurea Raf. 11.cc., descr. Ohio River. nigra Raf. 11.cc., descr. Ohio.

purpurea Raf. Il.cc., descr. Ohio.
peltata Raf. op. cit. 133; 17, descr. Florida.
\*poiretia Raf. op. cit. 134; 18, descr. (Vitis vulpina sensu Poiret) [North America].
poiretiana Raf. ex Jacks\*. Ind. Kew. 2:1217. 1895=praec.

populifolia Raf. op. cit. 131; 15, descr. Pennsylvania. prolifera Raf. op. cit. 134, t. 100. f. F.; 18. f. F. 1830, descr. Pennsylvania to Carolina and Ohio.

var. catabiana Raf. op. cit. 135; 19, descr. North Carolina.

isabella Raf. Il.cc., descr. North Carolina. media Raf. Il.cc., nom., nota. ohiensis Raf. Il.cc., nom., nota. Ohio. prunoides Raf. Il.cc., nom.

punctata Raf. op. cit. 140; 24, descr. Europe=Vitis vinifera Linn.

riparia Michx. Eastern North America.

var. purpurea Raf. op. cit. 132; 16, descr.
viridis Raf. Il.cc., descr.
rufa Raf. op. cit. 140; 24, descr. Europe=Vitis vinifera

rugosa Raf. op. cit. 127; 11, descr. New York to Ohio. saccharina Raf. op. cit. 140; 24, descr. Europe=Vitis vinifera

saxatilis Raf. op. cit. 124. t. 99. f. A; 8. f. A, descr. Arkansas and Texas.

var. blandina Raf. op. cit. 125; 9, descr. longipes Raf. Il.cc., descr. media Raf. Il.cc., descr.

serotina Raf. op. cit. 126; 10, descr. Ohio and Kentucky to Missouri.

var. micracina Raf. 11.cc., nom. repens Raf. 11.cc., nom. sanguinaria Raf. 11.cc., descr.

succinea Raf. op. cit. 140; 24, descr. Europe=Vitis vinifera Linn.

turbinata Raf. Il.cc., descr. Europe=Vitis vinifera Linn. var. alba Raf. Il.cc., nom.

cerulea Raf. Il.cc., nom. heterophylla Raf. Il.cc., nom. prolifera Raf. Il.cc., nom.

repens Raf. Il.cc., nom.
triloba Raf. Il.cc., nom.
verrucosa Raf. op. cit. 133; 17, descr. Carolina to Arkansas=
V. rotundifolia Michx.

vinifera Linn.; Raf. op. cit. 136; 20, descr. Europe.

var. acetaria Raf. op. cit. 138; 22, descr. aurea Raf. op. cit. 137; 21, descr. burgundica Raf. op. cit. 136; 20, descr. crassifolia Raf. op. cit. 138; 22, descr. cuprea Raf. Il.cc., descr.
dulcis Raf. Il.cc., descr.
edulis Raf. op. cit. 136; 20, descr.
felina Raf. op. cit. 138; 22, descr.
greca Raf. op. cit. 137; 21, descr.
laxa Raf. op. cit. 139; 23, descr. malvagia Raf. Il.cc., descr. malvesia Raf. op. cit. 137; 21, descr. moschata Raf. Il.cc., descr. nigraria Raf. Il.cc., descr. oporto Raf. op. cit. 138; 22, descr. perla Raf. Il.cc., descr.
precox Raf. op. cit. 136; 20, descr.
prolifica Raf. op. cit. 139; 23, descr.
syriaca Raf. Il.cc., descr. tinctoria Raf. op. cit. 138; 22, descr. tinto Raf. 11.cc., descr. velutina Raf. 11.cc., descr. versicolor Raf. op. cit. 137; 21, descr. violacea Raf. 11.cc., descr. zibila Raf. Il.cc., descr.

### ELAEOCARPACEAE

AYPARIA Raf. Sylva Tellur. 154. 1838, descr. = Elaeocarpus Linn.

crenata Raf. 1.c., descr. (Ayparhus Rumph. [i.e. Eyparehu, Arbor rediviva Rumph.] Herb. Amb. 3:165. t. 104. 1743).
Moluccas=Elaeocarpus rumphii Merr. Interpret. Rumph. Herb. Amb. 349. 1917=Elaeocarpus crenatus (Raf.) Merr. Jour. Arnold Arb. 29:212. 1948. ELAEOCARPUS Linn.

\*monoceros Raf. Sylva Tellur. 59. 1838, nom.=E. monocera

Cav. Philippines.

\*monogynus Raf. 1.c., nom. nov. praec.

\*GANITRUM Raf. Sylva Tellur. 59. 1838, descr.=Elaeocarpus Linn.

\*obtusum Raf. 1.c., descr. (Elaeocarpus integrifolius Lam., "Rumf. 3. 192," recte Rumph. Herb. Amb. 3:163. t. 102.
1743). "Molucas and Mauritius"=? Elaeocarpus oblongus Gaertn. et quoad Mauritius, Elaeocarpus integrifolius Lam.; see Merr. Interpret. Rumph. Herb. Am. 352. 1917.

GANITRUS Gaertn. = Elaeocarpus Linn. obtusus Raf. ex Jacks\*. Ind. Kew. 1:997. 1893=Ganitrum obtusum Raf. =? Elaeocarpus oblongus Gaertn. et E.

integrifolius Linn.

MISIPUS Raf. Sylva Tellur. 60. 1838, descr.=Elaeocarpus

serratus Raf. 1.c., descr. (Dicera serrata Forst.; Elaeocarpus dicera Vahl). New Zealand=Elaeocarpus dentatus (Forst.)

PERINKA Raf. Sylva Tellur. 60. 1838, descr.=Elaeocarpus Linn.

grandiflora Raf. 1.c., nom. (Elaeocarpus grandiflorus Sm.). Australia

reticulata Raf. 1.c., nom. (Elaeocarpus reticulatus Sm.). Australia.

SKIDANTHERA Raf. Sylva Tellur. 60. 1838, descr., nom. nov. Dicera Forst. = Elaeocarpus Linn.

dentata Raf. l.c., nom. (Dicera dentata Forst.; Elaeocarpus dentatus Vahl). New Zealand=Elaeocarpus dentatus dentatus Vah (Forst.) Vahl.

#### TILIACEAE

#FILURA Raf. Alsogr. Am. 44. 1838, nom., nota, subgen. Tilia Linn.=Tilia Linn.

#NEPARA Raf. Alsogr. Am. 44. 1838, descr., subgen. Tilia Linn. (Type Tilia europaea Linn.) = Tilia Linn.

TILIA Linn.

cinerea Raf. Alsogr. Am. 46. 1838, descr.; Aut. Bot. 143.

1840, nom. Kentucky and Alabama.
crenata Raf. op. cit. 44, descr.; Aut. Bot. 1.c., nom. Rocky
Mountains (Lewis & Clark).

fulva Raf. op. cit. 45, descr.; Aut. Bot. l.c., nom. Ohio River. fuscata Raf. ll.cc., descr., nom. Alleghany Mountains of Virginia.

glauca Raf. 11.cc., descr., nom. Alleghany Mountains. longifolia Raf. op. cit. 44, descr.; Aut. Bot. 1.c., nom. Arkansas

riparia Raf. op. cit. 45, descr.; Aut. Bot. 1.c., nom. Canada to Virginia.

stenopetala Raf. Fl. Ludovic. 92. 1817, descr. (Tilleul de la Louisiane Rob. Trav. Louis. 3:484. 1807); Med. Fl. 2:268. 1830, nom.; New Fl. N. Am. 4:95. 1836, nom.; Alsogr.

Am. 46. 1838, descr. Louisiana = ? Tilia americana Linn. umbellata Raf. Alsogr. Am. 46. 1838, descr.; Aut. Bot. 143.

1840, nom. Alleghany Mountains.

TRIDERMIA Raf. Sylva Tellur. 145. 1838, descr.=Grewia Linn.

papillosa Raf. 1.c., descr. (Grewia echinulata Delile, Cent. Pl. Méroë 82. 1826 (Caill. Voy. Méroë 4:372. 1827). Nubia =Grewia villosa Willd.

# MALVACEAE

ABUTILON Adans.

decarpum Raf. New Fl. N. Am. 1:40. 1836, descr. (Sida abutiloides Jacq.; Lavatera americana Linn.). Southern Florida = Abutilon abutiloides (Jacq.) K. Schum, quoad syn. Jacq.

\*mollissimum Raf. op. cit. 39, descr. (Sida abutilon Linn.). North America=Abutilon theophrasti Medic. (1787). (A. avicennae Gaertn., 1791).

var. palustre Raf. op. cit. 40, descr. Carolina. ruderale Raf. l.c., descr. New England to Kentucky. uniflorum Raf. 1.c., descr.

ACHANIA Sw.; Raf. Fl. Tellur. 1:84. 1836 [1837] = Malvaviscus Adans. (1763).

floridana Raf. New Fl. N. Am. 1:49. 1836, descr. (Malvaviscus floridanus Nutt.) Florida.

\*AIGOSPLEN Raf. Good Book 62. 1840, nom. nov. Callirhoë Nutt.=Nuttallia Barton (1822)=Callirhoë Nutt. (1821).

ALCEA Linn.=Althaea Linn.
\*filifolia Raf. Med. Repos. III. 2:341. 1808, nom., sphalm.= A. ficifolia Linn.

ANODA Cav.

\*dentifolia Raf. Herb. Raf. 50. 1833, nom. Rocky Mountains, Oregon or New Mexico.

\*CALIRHOE Raf. Fl. Tellur. 1:89. 1836 [1837], nom.; Good Book 62. 1840, nom.=Callirhoë Nutt. (1821).

\*DIADESMA Raf. Act. Soc. Linn. Bordeaux 6:264. 1834, nom. nov. Modiola "DC." [Moench], iter. Merr. Proc. Am. Philos. Soc. 86:87. 1942, op. cit. 90, nom.; Raf. New Fl. N. Am. 1:41. 1836, nom., nota, non Raf. (1836) = Modiola Moench (1794).

DIADESMA Raf. New Fl. N. Am. 1:41. 1836, nom., nota= Sida Linn cardanisea Raf. ex Jacks\*. Ind. Kew. 1:741. 1893 (Sida cardanisea Raf.). Louisiana. rhombifolia Raf. ex Jacks\*. 1.c. (Sida rhombifolia Linn.). Pantropic. stellata Raf. ex Jacks\*. l.c. (Sida stellata Torr.). North America = Sphaeralcea stellata Torr. = S. angustifolia (Cav.) G. Don. virgata Raf. ex Jacks\*. 1.c. (Sida virgata Hook.). Australia. \*DIPLANOMA Raf. Herb. Raf. 80. 1833, nom. subnud., nota (Hibiscus manihot Linn.); Sylva Tellur. 115. 1838, nom., sub Munchusia Raf. = Abelmoschus Medic. (1787). \*digitata Raf. Herb. Raf. 79. 1833, nom. Florida or Alabama. GOSSYPIUM Linn.22 albescens Raf. Sylva Tellur. 18. 1838, descr.; Prok. Jour. Bot. URSS 32:74. 1947. Cult. var. cayanense Raf. 1.c., descr.; Prok. 1.c. Cayenne. megasperma Raf. 1.c., descr. rubescens Raf. 1.c., descr.; Prok. 1.c. amblospermum Raf. op. cit. 17, descr. West Indies. asiaticum Raf. op. cit. 16, descr. Asia. aureum Raf. op. cit. 19, nom. subnud. Africa. bicolor Raf. op. cit. 18, descr. Trinidad. cambayense Raf. 1.c., descr.; Prok. Jour. Bot. URSS 32:70. 1947. India. cinereum Raf. op. cit. 17, descr. ? South America. convexum Raf. op. cit. 16, descr. Santa Marta. cunninghamii Raf. ex Jacks\*. Ind. Kew. 1:1057. 1893. Quid? decurrens Raf. Sylva Tellur. 15. 1838, descr. var. flocosum Raf. l.c., descr.
patulum Raf. l.c., descr.
rubrum Raf. l.c., descr. divaricatum Raf. op. cit. 17, descr. Hayti. fuscum Raf. op. cit. 16, descr. Asia. guyanense Raf. 1.c., descr. Guiana, Brazil. var. braziliense Raf. 1.c., descr.=G. peruvianum Cav. var. braziliense (Raf.) Prok. Jour. Bot. URSS 32:77. 1947.

verum Raf. l.c., descr.; Prok. l.c. herbaceum Linn.; Raf. op. cit. 15, descr. var. barbatum Raf. l.c., descr. megacarpum Raf. l.c., descr.

perenne Raf. op. cit. 16, descr. vulgare Raf. op. cit. 15, descr.
isabelum Raf. op. cit. 18, descr. Asia.
macrospermum Raf. op. cit. 15, descr. West Indies.
nankin Raf. op. cit. 19, nom. subnud. China. Prob.=G. nan-

king Meyen (1835).

niveum Raf. op. cit. 15, descr. West Indies.

pallens Raf. op. cit. 16, descr. Asia.

purpureum Raf. op. cit. 18, descr. West Indies, South America.

rohrianum Raf. op. cit. 19, descr. Porto Rico.

rupestre Raf. op. cit. 17, descr. Curação.

sarmentosum Raf. 1.c., descr. Africa.

speciosum Raf. op. cit. 18, descr.; Prok. Jour. Bot. URSS

32:67. 1947. India. teleium Raf. op. cit. 17, descr. Hab.? tenax Raf. op. cit. 16, descr. West Indies.

trichospermum Raf. op. cit. 17, descr. South America. virens Raf. op. cit. 15, descr. Martinique. virgatum Raf. op. cit. 14, descr. West Indies.

HIBISCUS Linn.

\*corymbosus Raf. Herb. Raf. 60. 1833, nom. Kentucky or Illinois.

\*croceus Raf. Med. Fl. 2:228. 1830, nom. [Eastern United States 1.

\*pallidus Raf. ex S. Wats. Bibl. Ind. N. Am. Bot. 1:135. 1878, nom.=Hibiscus trionum Linn. fide Watson, l.c.

#KARPAS Raf. Sylva Tellur. 14. 1838, descr. subgen. Gossypium Linn. (Type, Gossypium herbaceum Linn.)=Gossypium Linn. subgen. Karpas (Raf.) Prok. Jour. Bot. ŬRSS **32:**72. 1947.

#LANIGERUM Raf. Sylva Tellur. 14. 1838, descr. subgen. Gossypium Linn.=praec.

#LEIOFAIUM Raf. Sylva Tellur. 14. 1838, descr. subgen. Gossypium Linn.=praec.

MALOPE Linn.

Iutea Raf. Atl. Jour. 1:147. 1832, descr. (Malope malacoides auct. Am.); Good Book 43. 1840, nom., nota. North America.

MALVA Linn.

\*cupaniana Raf. Specch. Sci. 2:172. 1814, descr. Sicily.
pedunculata Raf. Car. Nuov. Gen. Sp. Sicil. 76. t. 19. f. 1.
1810, descr.; Stat. Gen. Sicil. 28. 1810, nom. Sicily. scandens Raf. Atl. Jour. 1:147. 1832, descr. Florida, Loui-

\*zanthenia Raf. Herb. Raf. 60. 1833, nom. Kentucky or Illinois.

MONOLIX Raf. First Cat. Gard. Transylv. Univ. 14. 1824, nom. nov. Callirhoë Nutt. (1821).

digitata Raf. l.c., nom. (Callirhoë digitata Nutt.). Kentucky. MUNCHUSIA Raf. Sylva Tellur. 115. 1838, descr.=Hibiscus Linn.

tomentosa Raf. 1.c., descr. (Hisbiscus clypeatus Linn.). Jamaica.

NAPEA Crantz=Napaea Linn.

\*tomentosa Raf. Life of Travels 138. 1836, nom. Pennsylvania.

SIDA Linn.

cardanisea Raf. Fl. Ludovic. 90. 1817, descr. (Sida 1, Rob. Voy. Louis. 3:480. 1807). Louisiana.
bicallosa Raf. op. cit. 91, descr. (Sida 2, Rob. 1.c.); New Fl. N. Am. 1:41. 1836, nom. Louisiana.

TRIONUM Linn. = Hibiscus Linn.

\*sulfureum Raf. Herb. Raf. 67. 1833, nom. Cumberland Mountains.

### BOMBACACEAE

ADANSONIA Linn. integrifolia Raf. Sylva Tellur. 149. 1838, descr. (Ophelus [sitularius Lour.]). East Africa = Adansonia digitata Linn.;

see Merrill, Trans. Am. Philos. Soc. II. 24(2):262. 1935. \*ZEIBA Raf. Fl. Tellur. 1:29. 1836 [1837], nom. [Ceiba Linn.].

# STERCULIACEAE

ALICTERES Neck. = Helicteres Linn.
\*fetida Raf. Sylva Tellur. 75. 1838, nom. (Helicteres carthagenensis Jacq.). Venezuela.

ANISORA Raf. Sylva Tellur. 74. 1838, descr. = Helicteres Linn. angulata Raf. 1.c., descr. (Helicteres arbor, ind. occident. Plukenet, Phytogr. t. 245. f. 3. 1720). West Indies=Helicteres jamaicensis Linn.

murri Raf. 1.c., descr. (Isora-Murri Rheede, Hort. Malabar. 6:55. t. 30. 1686). India=Helicteres isora Linn.

ANTIPHYLA Raf. New Fl. N. Am. 4:16. 1836 [1838], nom. alt. Riddelia Raf.; Aut. Bot. 5. 1840, nom.=Melochia Linn. serrata Raf. New Fl. I.c., nom. alt. Riddelia antiphyla Raf. Louisiana = Melochia hirsuta Cav.

BALANGHAS [Burm.] Raf. Sylva Tellur 72. 1828, descr.;

op. cit. 73, nom., nota=Sterculia Linn. rubiginosa Raf. 1.c., nom. (Sterculia rubiginosa Vent.). Malaysia.

telabo Raf. 1.c., nom. (Sterculia balanghas Linn.). Tropical

Asia. BRAXIPIS Raf. Sylva Tellur. 72. 1838, descr. = Cola Schott &

Endl. (1832), nom. conserv. (Bichea Stokes, 1812; Edwardia Raf., 1814; Lunanea DC., 1825).

grandiflora Raf. 1.c., descr. (Sterculia [grandiflora] Vent.).

Africa=Cola grandiflora (Vent.) Schott & Endl.

nitida Raf. op. cit. 73, descr. (Sterculia nitida Vitm.). East Africa=Cola nitida (Vent.) A. Chevalier.

CAMAION Raf. Sylva Tellur. 75. 1838, descr.=Helicteres Linn. hirsuta Raf. I.c., descr. (Helicteres hirsuta Lour.). Indo-China (Annam) = Helicteres hirsuta Lour; see Merrill, Trans. Am. Philos. Soc. II. 24(2):264. 1935. undulata Raf. I.c., descr. (Helicteres undulata Lour.). Indo-

China (Annam) = Sterculia lanceolata Cav.; see Merrill,

op. cit. 263.

CAUCANTHUS sensu Raf. Sylva Tellur. 72. 1838, descr., non Forsk .= Sterculia Linn. (Firmania Marsigli, 1786). platanifolia Raf. l.c., nom., nota (Sterculia platanifolia Linn. f.). India, Arabia, Egypt; naturalized in Carolina.

<sup>&</sup>lt;sup>22</sup> Rafinesque may have derived his ideas on species segregation in Gossypium perhaps from Rohr, J. P. B. von, Amerkungen über den Cattunbau . . . 1:[1-6]. 1-129. 1791; 2:[1-18]. 1-156. 1793, or from the French translation of that work.

CLOMPANUS Raf. Sylva Tellur. 73. 1838, descr., non Aubl. (1775) = Sterculia Linn.

molucanus Raf. l.c., nom. ([Clompanus major] Rumph. Herb. Amb. 3:168. t. 107. 1743). Moluccas=Sterculia foetida Linn.; see Merrill, Interpret, Rumph. Herb. Amb. 364.

COLARIA Raf. Sylva Tellur. 73. 1838, descr.=Cola Schott & Endl. (1832), nom. conserv. (Bichea Stokes, 1812; Edwardia Raf.; 1814; Lunanea DC., 1825).

acuminata Raf. 1.c., descr. (Sterculia acuminata Beauv.).

Tropical Africa=Cola acuminata (Beauv.) Schott & Endl.

heterophyla Raf. I.c., descr. (Sterculia heterophylla Beauv.).
Tropical Africa=Cola heterophylla (Beauv.) Schott & Endl.

CULHAMIA Forsk .= Sterculia Linn.

triloba Raf. Sylva Tellur. 73. 1838, descr.; op. cit. 158. 1838 (Sterculia setigera Delile). Arabia.

EDWARDIA Raf. Specch. Sci. 1:158. 1814, descr.=Cola Schott & Endl. (1833), nom. conserv. (Bichea Stokes, 1812; Edwardia Raf., 1814; Lunanea DC., 1825).

lurida Raf. l.c., descr. Tropical Africa (Guinea)=Cola acu-

minata (Beauv.) Schott & Endl.

FOMETICA Raf. Sylva Tellur. 75. 1838, descr.=Heritiera Dryand. (1789).

punctata Raf. 1.c., descr. (Heritiera fomes Buch.-Ham.). Burma.

**HELICTERES** Linn.

fetida Raf. ex Jacks\*. Ind. Kew. 2:1117. 1893 (Alicteres fetida Raf.). South America=Helicteres carthagenensis

ICOSINIA Raf. Sylva Tellur. 75. 1838, descr. = Sterculia Linn. paniculata Raf. 1.c., descr. (Helicteres paniculata Lour.).
Indo-China (Annam)=Sterculia sp.; see Merrill, Trans.
Am. Philos. Soc. II. 24(2):263. 1935.

KARAKA Raf. Sylva Tellur. 72. 1838, descr. = Sterculia Linn.

(Erythropsis Lindl., 1827).

colorata Raf. 1.c., descr. (Sterculia colorata Roxb. Pl. Coromand. 1:26. t. 25. 1795). India. (Erythropsis colorata Burkill).

KAVALAMA Raf. Sylva Tellur. 72. 1838, descr. (Kavalam Adans.) = Sterculia Linn.

urens Raf. 1.c., nom. (Sterculia urens Roxb.). India (Malabar). NISORALIS Raf. Sylva Tellur. 74. 1838, descr.=Helicteres Linn.

jamaicensis Raf. 1.c., descr. (Helicteres jamaicensis Lam.). Tamaica.

\*OPSOPEA Raf. Sylva Tellur. 73. 1838, descr. [Opsopaea Neck., 1790] = Sterculia Linn.

\*fetida Raf. l.c., descr. (Sterculia helicteres Pers.; Helicteres apetala Jacq.). Colombia=Sterculia apetala (Jacq.) Karst.

ORSOPEA Raf. ex Jacks\*. Ind. Kew. 2:377. 1894, sphalm.= Opsopea Raf.=Sterculia Linn.

fetida Raf. ex Jacks\*. 1.c., sphalm. Colombia=Opsopea fetida Raf.=Sterculia apetala (Jacq.) Karst. (S. helicteres Pers.). OZOXETA Raf. Sylva Tellur. 75. 1838, descr. = Helicteres Linn.

ovata Raf. l.c., nom. (Helicteres pentandra Linn.). Guiana. RIDDELIA Raf. New Fl. N. Am. 4:15. 1836 [1838], descr.;

Good Book 48. 1840, nom.=Riddellia Raf.=Melochia Linn. antiphyla Raf. op. cit. 16, descr. Louisiana.

\*RIDDELLIA Raf. Sylva Tellur. 113. 1838, descr.; Aut. Bot. 5. 1840, nom.; Good Book 46. 1840, nom.=Melochia Linn. \*antiphyla Raf. Sylva Tellur. et Aut. Bot. Il.cc., descr., nom. Louisiana.

**SOUTHWELLIA** Salisb. = Sterculia Linn.

longifolia Raf. Sylva Tellur. 73. 1838, nom. (Sterculia longifolia Vent.). Tropical Africa=Cola acuminata (Beauv.) folia Vent.). Schott & Endl.

TRIPLOBUS Raf. Sylva Tellur. 110. 1838, descr., nom. nov. Triphaca Lour. = Sterculia Linn.

cordata Raf. op. cit. 111, descr. [Triphaca africana Lour.]. East Africa=Sterculia africana (Lour.) Merr. Trans. Am. Philos. Soc. 24(2):263. 1935 (Sterculia triphaca R. Br.; S. ipomocaefolia Garcke).

## DILLENIACEAE

**DIPLOTER** Raf. Sylva Tellur. 165. 1838, descr. = Tetracera

alnifolia Raf. 1.c., nom. (Tetracera alnifolia Willd.). Tropical

ELEIASTIS Raf. Sylva Tellur. 165. 1838, descr.=Tetracera

levis Raf. l.c., nom. (Tetracera laevis Vahl). India=Tetracera akara (Burm. f.) Merr.

\*GYNETERA Raf. Sylva Tellur. 165. 1838, descr.=Tetracera Linn.

\*volubilis Raf. 1.c., nom. (Tetracera volubilis Linn.). South America.

GYNETRA Raf. ex Jacks\*. Ind. Kew. 1:1079. 1893=praec. volubilis Raf. ex Jacks\*. l.c.=praec.
\*SIALITA Raf. Anal. Nat. Tabl. Univ. 176. 1815, nom.
[Syalita Rheede, Hort. Malabar. 3:39. t. 38, 39. 1682]=
Syalita Adans. (1763)=Dillenia Linn.

TRAXILISA Raf. Sylva Tellur. 161. 1838, descr.=Tetracera Linn.

aspera Raf. op. cit. 162, descr. (Calligonum asperum Lour.). Indo-China (Annam) = Tetracera scandens (Linn.) Merr.; see Merrill, Trans. Am. Philos. Soc. II. 24(2):264. 1935.

\*VALBOMIA Raf. Sylva Tellur. 165. 1838, nom. [Wahlbomia Thunb.] = Tetracera Linn.

### THEACEAE

\*CAMELIA Raf. Sylva Tellur. 138, 139, 140. 1838, nom.= Camellia Linn.

\*axillaris Raf. op. cit. 140, nom.=Camellia axillaris Roxb.=Gordonia axillaris (Roxb.) Dietr. Southeastern China.

\*susanqua Raf. op. cit. 140, nom., sphalm.=Camellia sasanqua Thunb. Japan.

DESMITUS Raf. Sylva Tellur. 139. 1838, descr.; Good Book

48. 1840, nom.=Camellia Linn.
reticulata Raf. l.c., descr. (Camellia reticulata Lindl. Bot. Reg. 13: t. 1078. 1827; Hook. Bot. Mag. 54: t. 2784. 1827).

China. DRUPIFERA Raf. Sylva Tellur. 140. 1838, descr.; Good Book

48. 1840, nom. = Camellia Linn. oleosa Raf. Sylva Tellur. 1.c., descr. (Camellia drupifera Lour.). Indo-China.

FRANKLINIA Bartr. ex Marsh.

†alatama Raf. First Cat. Bot. Gard. Transylv. Univ. 21. 1824, nom. Atl. Jour. 1:79. fig. 1832; Am. Florist fig. 3. 1832; Bartram's Garden, cult.=Franklinia alatamaha Bartr. ex

KEMELIA Raf. Sylva Tellur. 138, nom., 139, descr., 1838, nom. nov. Camellia Linn.; Good. Book 48. 1840, nom. = Camellia Linn.

\*japonica Raf. 1.c., descr. (Camellia japonica Linn.]. Japan.

SASANQUA Raf. Sylva Tellur. 140. 1838, descr.; Good Book 48. 1840, nom. = Sasanqua Nees (1834) = Camellia Linn.

malliflora Raf. Sylva Tellur. I.c., descr. (Camellia sasanqua Thunb. var. stricta Ker-Gawl. Bot. Reg. 7: t. 547. 1821).

China = Camellia sasanqua Thunb.

ochroleuca Raf. l.c., descr. (Camellia axillaris Roxb.; KerGawl. Bot. Reg. 4: t. 349. 1819). Penang, cult. e China =
Gordonia axillaris (Roxb.) D. Dietr. (G. anomala Spreng.).

odorata Raf. l.c., descr. (Camellia sasanqua Thunb.). Japan. oleifera Raf. l.c., descr. (Camellia oleifera Abel.; Lindl. Bot.

Reg. 11: t. 942. 1826). China.

†THEAPHYLA Raf. Fl. Tellur. 1:17. 1836 [1837], nom.; Svlva Tellur. 138. 1838, descr., nom. nov. Thea Linn.; Good Book 48. 1840, nom.=Camellia Linn.

\*anamensis Raf. Sylva Tellur. 139. 1838, descr. [Thea cochinchinensis Lour.]. Indo-China (Annam)=Thea sinensis

Linn.=Camellia sinensis (Linn.) O. Kuntze.

\*cantoniensis Raf. l.c., descr. (Thea cantoniensis Lour.). China = Thea sinensis Linn.=Camellia sinensis (Linn.) O. Kuntze; see Merrill, Trans. Am. Philos. Soc. II. 24(2): 267. 1935.

\*euryoides Raf. 1.c., descr. (Camellia euryoides Lindl. Bot.

Reg. 12: t. 983. 1826). China. \*lanceolata Raf. 1.c., descr., nom. nov. Thea bohea Linn. China = Camellia sinensis (Linn.) O. Kuntze.
\*laxa Raf. l.c., descr., nom. nov. Thea chinensis Linn. China

=Camellia sinensis (Linn.) O. Kuntze.
\*oleifera Raf. 1.c., descr. (Thea [oleosa] Lour.). China= Thea oleosa Lour. = Camellia oleosa Lour. ex Jacks\*. Ind. Kew. 1:400. 1893=C. drupifera Lour. (C. oleifera Abel); see Merrill, Trans. Am. Philos. Soc. II. 24(2):266. 1935. \*viridis Raf. l.c., descr. [Thea viridis Linn.]. China, Japan = Camellia sinensis (Linn.) O. Kuntze.

THEAPHYLLA Raf. Med. Fl. 2:267. 1830, nom. nov. Thea Linn.; Loud. Gard. Mag. 8:246. 1832, nom., nota, iter. Schlecht. Linnaea 8: Lit.-Ber. 71. 1833, iter. Britten, Jour. Bot. 38:277. 1900 = Theaphyla Raf. (1838) = Camellia Linn. anamensis Raf. ex Jacks\*. Ind. Kew. 2:1061. 1895 (Theaphyla

anamensis Raf.) = Camellia sinensis (Linn.) O. Kuntze. cantoniensis Raf. ex Jacks\* 1.c. (Theaphyla cantoniensis Raf.) = Camellia sinensis (Linn.) O. Kuntze. euryoides Raf. ex Jacks\* 1.c. (Theaphyla euryoides Raf.) =

Camellia euryoides Lindl.

lanceolata Raf. ex Jacks\*. l.c. (Theaphyla lanceolata Raf.) = Camellia sinensis (Linn.) O. Kuntze.

laxa Raf. ex Jacks\*. l.c. (Theaphyla laxa Raf.)=Camellia sinensis (Linn.) O. Kuntze.

oleifera Raf. ex Jacks\*. l.c. (Theaphyla oleifera Raf.) = Camellia drupifera Lour.
viridis Raf. ex Jacks\*. l.c. (Theaphyla viridis Raf.) = Camellia sinensis (Linn.) O. Kuntze.

## **GUTTIFERAE**

ASCYRUM Linn. grandiflorum Raf. Fl. Ludovic. 87. 1817, descr. (Ascyrum Rob. Voy. Louis. 3:472. 1807); Herb. Raf. 55. 1833, nom.; New Fl. N. Am. 3:95. 1836 [1838], nom. Louisiana=A. stans Michx.

hypericifolium Raf. ex Jacks\*. Ind. Kew. 1:209. 1893. sphalm. (Raf. Sylva Tellur. 116. 1838 "A hyperic. Sw.," i.e. A. hypericoides sensu Sw.). West Indies=A. hypericoides Linn.

montanum Raf. Sylva Tellur. 116. 1838, descr. (Ascyrum hypericoides sensu Sw.). Jamaica=praec.

BIROLIA Raf. Sylva Tellur. 163. 1838, descr., non Bell. (1808) = Clusia Linn.

alba Raf. 1.c., nom. (Clusia alba Jacq.). West Indies. #CENTENA Raf. Fl. Tellur. 3:79. 1836 [1837], descr., subgen. Komana Adans.=Hypericum Linn.

#CENTERIA Raf. Fl. Ludovic. 88. 1817, descr., subgen. Hypericum Linn.

CLUSIA Linn.

\*pedunculata Raf. Sylva Tellur. 164. 1838, nom., sub Firkea Raf., sphalm. New Caledonia = Clusia pedicellata Forst. f. =Garcinia pedicellata (Forst. f.) Seem.

ELODES Adans.; Raf. Fl. Tellur. 3:79. 1836 [1837], descr.= Hypericum Linn.

petiolata Raf. 1.c., nom. [Hypericum petiolatum Walt.]. Southeastern United States

tubulosa Raf. 1.c., nom. [Hypericum tubulosum Walt.]. Southeastern United States.

ELWERTIA Raf. Sylva Tellur. 163. 1838, descr.=Clusia Linn. retusa Raf. l.c., nom. (Clusia retusa Poir.). West Indies= Clusia rosea Jacq.

EPISIPHIS Raf. Fl. Tellur. 3:78. 1836 [1837], descr.=Hypericum Linn.

parvifolia Raf. 1.c., descr. (Hypericum aegypticum Linn.; Ker-Gawl. Bot. Reg. 3: t. 196. 1817). Egypt.

FIRKEA Raf. Sylva Tellur. 163. 1838, descr.=Clusia Linn. pedunculata Raf. ex Jacks\*. Ind. Kew. 1:968. 1893 (Clusia pedicellata Forst. f.). New Caledonia=Garcinia pedicellata (Clusia pedicellata Constitution). (Forst. f.) Seem. (Clusianthemum pedicellatum Vieill.).

rosea Raf. Sylva Tellur. 163. 1838, nom. (Clusia rosea Jacq.). Santo Domingo.

sessilis Raf. ex Jacks\*. 1.c. (Clusia sessilis Forst. f.). Tonga or Friendly Islands=Garcinia sessilis (Forst. f.) Seem. venosa Raf. Sylva Tellur. 163. 1838, nom. (Clusia venosa Jacq.). West Indies.

HYPERICUM Linn.

\*acutum Raf. Herb. Raf. 62. 1833, nom. Kentucky or Illinois. \*adpressum Raf. Am. Monthly Mag. Crit. Rev. 1:358. 1817, descr., nom. nov. provis. (Hypericum sp. [no. 6] Barton, Fl. Philadel. Prodr. 74. 1815) [Hypericum adpressum Barton, Comp. Fl. Philad. 2:15. 1818]. Philadelphia.

\*diffusum Raf. First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom. Kentucky.

\*egyptium Raf. Fl. Tellur. 3:78. 1836 [1837], nom., sub Episiphis Raf. Egypt=H. aegypticum Linn. fulgidum Raf. Fl. Ludovic. 88. 1817, descr. (Millepertuis doré Rob. Voy. Louis. 3:473. 1807); Herb. Raf. 55. 1833, nom.; New Fl. N. Am. 3:95. 1836 [1838], nom. Louisiana=? H. fasciculatum Lam.

\*grandiflorum Raf. Herb. Raf. 50. 1833, nom. Rocky Mountains or Oregon.

\*lasistemon Raf. l.c., nom. Rocky Mountains or Oregon. \*laurifolium Raf. op. cit. 79, nom. Alabama or Florida. \*revolutum Raf. Med. Repos. II. 5:353. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. Central Atlantic United

States.

\*riparium Raf. Herb. Raf. 62. 1833, nom. Kentucky or Illinois.

rostratum Raf. Fl. Ludovic. 88. 1817, descr. (Hypericum galioides affine Rob. Voy. Louis. 3:88. 1807); Herb. Raf. 55. 1833, nom.; New Fl. N. Am. 3:95. 1836 [1838], nom. Louisiana=? H. densiflorum Pursh, vel H. lobocarpum Gattinger.

\*tenessicum Raf. Herb. Raf. 62. 1833, nom. Tennessee. \*uniflorum Raf. Herb. Raf. 67. 1833, nom. Cumberland Mountains.

\*virgatum Raf. op. cit. 62, nom. Kentucky or Illinois.

ICOSTEGIA Raf. Sylva Tellur. 163. 1838, descr.=Clusia Linn.
flava Raf. l.c., nom. (Clusia flava Linn.) Jamaica.

KNIFFA Vent. (1799)=Knifa Adans. (1763)=Hypericum Linn.
brevistylis Raf. ex Jacks\*. Ind. Kew. 2:9. 1894 (Hypericum

brevistylum Choisy). North America.

LOLANARA Raf. Fl. Tellur. 1:16, 34. 1836 [1837], nom.; op. cit. 2:34. 1836 [1837], descr. — Ochrocarpos Thou. (1806). odorata Raf. Fl. Tellur. 2:34. 1836 [1837], descr. (Lolanwara Lagrangian). [i.e. Lolowaran, Lignum clavorum Rumph. Herb. Amb. 3:97. t. 64. 1743]). Moluccas=Ochrocarpos odoratus (Raf.)

Merr. Jour. Arnold Arb. 26:94. 1945 (O. ovalifolius T. Anders. 1885). PETALANISIA Raf. Fl. Tellur. 3:80. 1836 [1837], descr.=

Hypericum Linn. PLEURENODON Raf. Fl. Tellur. 3:80. 1836 [1837], descr.= Hypericum Linn.

\*SAIOTHRA Raf. Act. Soc. Linn. Bordeaux 6:264. 1834, nom., sphalm., iter. Merr. Proc. Am. Philos. Soc. 86:87. 1942, op. cit. 90, nom.=Sarothra Linn.=Hypericum Linn.

SAROTHRA Linn.=Hypericum Linn.
†canadensis Raf. Atl. Jour. 1:17. 1832, nom., in nota (Hypericum canadense Linn.); Fl. Tellur. 3:79. 1836 [1837], nom. Eastern North America.

cuneifolia Raf. Atl. Jour. 1.c., descr. Kentucky. fastigiata Raf. Fl. Tellur. 3:79. 1836 [1837], nom. (Hypericum fastigiatum Ell.]. Southeastern United States. †parviflora Raf. 1.c., nom. [Hypericum parviflorum Willd.]. North America.

pauciflora Raf. 1.c., nom. [Hypericum pauciflorum H.B.K.]. Mexico.

†quinquenervia Raf. ex M'Murtrie, Sketch. Louisv. 226. 1819, nom. (quinquinervia); Jacks. Ind. Kew. 2:806. 1895 [Hypericum quinquenervium Walt.]. Southeastern United States.

\*stricta Raf. Atl. Jour. 1:17. 1832, nom. nov. Hypericum canadense Linn. Eastern North America. trinervia Raf. Fl. Tellur. 3:79. 1836 [1837], nom. (Hypericum triplinerve Vent.). North America.

\*STREPALON Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom.=Streptalon Raf. (1837)=Hypericum Linn. \*saxatile Raf. 1.c., nom. (Hypericum dolabriforme Vent.). Kentucky.

\*strictum Raf. 1.c., nom. Kentucky.

STREPTALON Raf. Fl. Tellur. 3:80. 1836 [1837], descr.=

dolabriforme Raf. 1.c., nom. [Hypericum dolabriforme Vent.]. Kentucky, Tennessee.

TRIADENUM Raf. Med. Repos. II. 5:352. 1808, nom.; Jour. Bot. (Paris) 2:171. 1809, nom.; Am. Monthly Mag. Crit. Rev. 2:267. 1818; nom., nota (Hypericum virginicum Linn.); Jour. Phys. Chim. Hist. Nat. 89:261. 1819, nom., nota (Triddenum); Ann. Gén. Sci. Phys. 7:105. 1820, nom.; Fl. Tellur. 3:78. 1836 [1837], descr.=Hypericum

Linn. \*punctatum Raf. Herb. Raf. 62. 1833, nom. Kentucky or Illinois.

purpurascens Raf. Med. Repos. II. 5:352. (Hypericum virginicum Linn.); Jour. Bot. (Paris) 2:171. 1809, nom.; Jour. Phys. Chim. Hist. Nat. 89:261. 1819, nom.; Med. Fl. 2:269. 1830 nom. (Hypericum virginicum Linn.); Loud. Gard. Mag. 8: 246. 1832, nom., nota (Hypericum virginicum Linn.), iter. Schlecht. Linnaea 8: Lit. Ber. 71. 1833, iter. Britten, Jour. Bot. 38:227. 1900;

A. Gray, Am. Jour. Sci. 40:228. 1841, nom. Eastern North America=Hypericum virginicum Linn.

purpureum Raf. ex Jacks\*. Ind. Kew. 2:1101. 1895, sphalm.=

praec.

virginicum Raf. Fl. Tellur. 3:78. 1836 [1837], nom. (Hypericum virginicum Linn.). Eastern North America= Hypericum virginicum Linn.

\*TRIDDENUM Raf. Jour. Phys. Chim. Hist. Nat. 89:261. 1819, nom., sphalm.=Triadenum Raf.=Hypericum Linn.

#### DIPTEROCARPACEAE

NEISANDRA Raf. Sylva Tellur. 163. 1838, descr.=Hopea Roxb. (1814, 1819).

indica Raf. 1.c., nom. (Hopea decandra Buch.-Ham.). India= Hopea odorata Roxb.

# ELATINACEAE

\*CRIPTINA Raf. Ann. Gén. Sci. Phys. 5:349. 1820, nom. nov. Crypta Nutt. = Elatine Linn.

\*CRYPTARIA Raf. Am. Monthly Mag. Crit. Rev. 3:271. 1818, nom. nov. provis. Crypta Nutt.=Elatine Linn.

\*CRYPTELLA Raf. Am. Monthly Mag. Crit. Rev. 3:271. 1818,

\*CRYPTELLA Rat. Am. Monthly Mag. Crit. Rev. 3:271. 1818, nom. nov. provis. Crypta Nutt. = Elatine Linn.

†CRYPTINA Raf. Am. Monthly Mag. Crit. Rev. 3:271. 1818, nom. nov. Crypta Nutt.; op. cit. 273, descr.; op. cit. 4:192. 1819, nom. (Crypta Nutt.); Jour. Phys. Chim. Hist. Nat. 89:96, 260. 1819, nom. (Crypta Nutt.); Isis von Oken 1820, 1: Lit. Anz. 237. 1820, nom. (Crypta Nutt.); op. cit. 1821, 2:978. 1821, nom. (Crypta Nutt.); Good Book 21. 1840 nom.—Flatine Linn. 1840, nom.=Elatine Linn.

\*minima Raf. Aut. Bot. 46, 112. 1840, nom. (Crypta minima Nutt.; Peplis americana Pursh). Hudson and Delaware Rivers=Elatine americana (Pursh) Arn.

## FRANKENIACEAE

\*FRANKERIA Raf. Fl. Tellur. 2:93. 1836 [1837], nom. sub. Menetho Raf., sphalm.=Frankenia Linn.

\*quadripetala Raf. l.c., nom.=Frankenia tetrapetala Labill. Australia.

MENETHO Raf. Fl. Tellur. 2:93. 1836 [1837], descr.=Frankenia Linn.

difolius Raf. 1.c., descr. (Frankenia sphalm., Frankeria)
"quadripetala" [tetrapetala] Labill. Nov. Holl. Pl. Sp. 1:88.
t. 114. 1804). Australia=Frankenia tetrapetala Labill. sedifolius Raf.

**STREPTIMA** Raf. Fl. Tellur. 2:93. 1836 [1837], descr.= Frankenia Linn.

pauciflora Raf. l.c., descr. (Frankenia pauciflora DC.; Hook. Bot. Mag. 56: t. 2896. 1829). Australia.

## TAMARICACEAE

EUDIPLEX Raf. Fl. Tellur. 3:38. 1836 [1837], descr. (Type Tamarix germanica Linn.) = Tamarix Linn.

# FOUQUIERIACEAE

FOUQUIERA Spreng. (1825)=Fouquieria H.B.K. (1823). \*formosa Raf. Sylva Tellur. 149. 1838, descr. Mexico. [Fouquieria formosa H.B.K.].

## CISTACEAE

ANTHELIS Raf. Chloris Aetn. 9. 1815, nom. nov. Helianthemum Juss.; Am. Monthly Mag. Crit. Rev. 2:266. 1818, nom., nota (Helianthemum Juss.); op. cit. 4:193. 1818, nom. (Helianthemum Juss.); Act. Soc. Linn. Bordeaux 6:263. 1834 nom. (Helianthemum Juss.), iter. Merr. Proc. Am. Philos. Soc. 86:86. 1942; Fl. Tellur. 1:17. 1836 [1837], nom. (Helianthemum Juss.); New Fl. N. Am. 1:90. 1836, nom.; op. cit. 3:30. 1836 [1838], nom., nota; Sylva Tellur. 132. 1838, nom. nota (Helianthemum Juss.); Good Book 46. 1840, nom.=Helianthemum Mill. (1754). albida Raf. Chloris Aetn. 9. 1815, nom. (Cistus albidus Linn.; Helianthemum albidum Pers.). Sicily=Cistus albidus Linn.

Linn.

arenaria Raf. New Fl. N. Am. 3:31. 1836 [1838], descr.
Southern New Jersey, Florida=? Halimium canadense
(Linn.) Grosser=? Crocanthemum canadense (Linn.) Britton.

glauca Raf. Chloris Aetn. 9. 1815, nom. (Helianthemum glaucum Pers.). Sicily=Helianthemum glaucum (Cav.)

glutinosa Raf. 1.c., nom. (Cistus glutinosus Linn.). Sicily= Fumana thymifolia (Linn.) Halácsy, var. glutinosa (Linn.) Grosser.

laevipes Raf. l.c., nom. (Cistus laevipes Linn.). Sicily = Fumana laevipes (Linn.) Spach. podanisia Raf. New Fl. N. Am. 3:30. 1836 [1838], descr. Red River of Arkansas and Louisiana; Texas=Halimium rosmarinifolium (Pursh) Grosser=Crocanthemum rosmarinifolium (Linn.) Resubset: marinifolium (Linn.) Barnhart.

#EUDIEXA Raf. New Fl. N. Am. 1:90. 1836, descr., subgen.

Lechea Linn.

FUMANA Raf. Sylva Tellur 132. 1838, descr.=Fumana Spach (1836).

canariensis Raf. 1.c., nom. (Cistus canariensis Jacq.). Canary Islands, Morocco=Helianthemum canariense (Jacq.) Pers. ferruginea Raf. l.c., nom. (Cisuus ferrugineus Lam.). Mediterranean region and Asia Minor=Fumana arabica (Linn.)

\*Ievipes Raf. 1.c., nom. (Cistus laevipes Linn.). Mediterranean region=Fumana laevipes (Linn.) Spach.

minor Raf. I.c., nom. (Cistus fumana Linn.; Helianthemum fumana Mill.). Mediterranean region=Fumana nudifolia (Lam.) Janch. (F. procumbens Gren & Godr.).

polifolia Raf. 1.c., nom. (Helianthemum polifolium Pers.). Europe=Helianthemum apenninum (Linn.) Lam.

HORANTHES Raf. New Fl. N. Am. 3:30. 1836 [1838], descr., subgen. Anthelis Raf.; Sylva Tellur. 132. 1838, descr. ut gen. = Crocanthemum Spach (1836).

arenaria Raf. Sylva Tellur. op. cit. 133. 1838, nom. [Anthelis arenaria Raf.]. Southern New Jersey, Florida=? Halimium canadense (Linn.) Grosser=? Crocanthemum canadense (Linn.) Britton.

podanisia Raf. l.c., nom. [Anthelis podanisia Raf.]. Arkansas, Texas=Halimium rosmarinifolium (Pursh) Louisiana, Grosser=Crocanthemum rosmarinifolium (Pursh) Barn-

tripetala Raf. New Fl. N. Am. 3:30. 1836 [1838], nom. [Helianthemum tripetalum Moç. & Sessé; Lechea mexicana Raf.] Mexico=Lechea tripetala (Moç. & Sessé) Britton.

HORANTHUS Raf. ex Jacks\*. Ind. Kew. 1:1173. 1893=praec. †LADANUM Raf. Anal. Nat. Tabl. Univ. 181. 1815, nom.; Sylva Tellur. 131. 1838, descr.; Spach, Ann. Sci. Nat. II. Bot. 6:366. 1836, non Dill. ex Linn. = Cistus Linn. verum Raf. Sylva Tellur. 131. 1838, nom. (Cistus ladaniferus

Linn.). Mediterranean region=Cistus ladaniferus Linn.

LECHEA Linn.

brevifolia Raf. New Fl. N. Am. 1:96. 1836, descr. Appalachian Mountains.

cinerea Raf. op. cit. 91, descr. (Lechea thymifolia Michx.). Florida, Georgia.

corymbosa Raf. op. cit. 94, descr. Alleghany Mountains. floridana Raf. op. cit. 95, descr. Florida. furfuracea Raf. op. cit. 92, descr. Kentucky, Illinois. glomerata Raf. op. cit. 94, descr. Appalachian Mountains. heterophyla Raf. op. cit. 93, descr. (Lechea minor sensu Sm.) Kentucky, Illinois=Lechea minor Linn.

var. major Raf. op. cit. 94, nom.

var. major Raf. op. cit. 94, nom.
minor Raf. l.c., nom.
parviflora Raf. l.c., descr.

laxiflora Raf. op. cit. 92, descr. New Jersey.
var. brevifolia Raf. l.c., descr.
\*linifolia Raf. Atl. Jour. 1:18. 1832, nom. North America.
\*mexicana Raf. Sylva Tellur. 133. 1838, nom. (Helianthemum tripetalum Moç. & Sessé). Mexico=Lechea tripetala (Moç. & Sessé) Britton.
†mucronata Raf. Précis Découv. Somiol. 37. 1814, descr.;
Jour. Bot. (Desv.) 4:269. 1814, descr.; Am. Monthly Mag.
Crit. Rev. 1:359. 1817, nom.; New Fl. N. Am. 1:93. 1836, descr. (Lechea villosa Ell.; L. major sensu Walter et Michx.). New England to New Jersey and Carolina (Lechca Michx.). New England to New Jersey and Carolina (Lechca villosa Ell.).

var. ramosa Raf. New Fl. N. Am. 1.c., descr. [South

Carolina]. sessiliflora Raf. 1.c., descr. Missouri.

simplex Raf. l.c., descr. pauciflora Raf. New Fl. N. Am. 1:96. 1836, descr. Long Island and New Jersey, seashores.

LECHEA (continued).

\*paucifolia Raf. Atl. Jour. 1:18. 1832, nom. North America. pulchella Raf. New Fl. N. Am. 1:94. 1836, descr. Pine Barrens of New Jersey

var. elegans Raf. 1.c., descr. minor Raf. 1.c., descr. pyramidalis Raf. 1.c., descr.

recurvata Raf. op. cit. 93, descr. Virginia and Carolina revoluta Raf. op. cit. 94, descr. (Lechea minor Linn.). Canada and Alleghany Mountains of Pennsylvania=Lechea minor Linn.

secundiflora Raf. op. cit. 95, descr. Western Kentucky= Lechea tenuifolia Michx.

sessiliflora Raf. op. cit. 97, descr. Alabama, Florida.

\*sessilifolia Raf. ex Hodgdon, Rhodora 40:63. 1938, sphalm.=

stellata Raf. op. cit. 96, descr. New York, Ohio=L. minor

†surculosa Raf. Herb. Raf. 68. 1833, nom.; New Fl. N. Am. 1:94. 1836, descr. Pennsylvania.

ternifolia Raf. New Fl. N. Am. 1:91. 1836, descr. Virginia, New Tersev.

uniflora Raf. op. cit. 96, descr. Alleghany Mountains of Maryland.

verna Raf. op. cit. 92. 1836, descr., nom. nov. Lechea tenuifolia Michx. South Carolina=Lechea tenuifolia Michx.

virgata Raf. op. cit. 95, descr. Alleghany Mountains.

var. bracteata Raf. I.c., descr.
breviflora Raf. I.c., descr.
#LEKEA Raf. New Fl. N. Am. 1:93. 1836, nom., subgen. Lechea Linn.

LIBANOTIS Raf. Sylva Tellur. 132. 1838, descr.=Cistus Linn. populifolia Raf. 1.c., nom. (Cistus populifolius Linn.). Southern Europe=Cistus populifolius Linn.

umbellata Raf. I.c., nom. (Cistus libanotis Lam.). Mediterranean region=Halimium libanotis (Linn.) Lange.

#MENANDRA Raf. New Fl. N. Am. 1:90. 1836, descr., subgen. Lechea Linn.

\*PLATONIA Raf. Car. Nov. Gen. Sp. Sicil. 73. 1810, nom. nov. Helianthemum auctt. (non Platonia Raf. 1808, nec Mart., 1829, nec Kunth, 1830) = Helianthemum Mill. (1754).
PSISTINA Raf. Sylva Tellur. 133. 1838, descr. (Anthelis sp.) =

Helianthemum Mill. (1754).

STEGITRIS Raf. Sylva Tellur. 132. 1838, descr.=Halimium (Dunal) Spach (1836).

algarviensis Raf. 1.c., nom. (Cistus algarvensis Curtis).

Iberian Peninsula=Halimium ocymoides (Lam.) Willk. &

atriplicifolius Raf. 1.c., nom. (Cistus atriplicifolius Lam.). Iberian Peninsula=Halimium atriplicifolium (Lam.) Spach. calicinus Raf. 1.c., nom. (Cistus calycinus Linn.). Southern

lasianthus Raf. 1.c., nom. (Cistus lasianthus Lam.). Iberian Peninsula=Halimium lasianthum (Lam.) Grosser.

STROBON Raf. Sylva Tellur. 132, 1838, descr.=Cistus Linn. et, p.p., Halimium (Dunal) Spach (1836).

halmifolium Raf. l.c., nom. (Cistus halmifolius Linn.). Mediterranean region=Halimium halmifolium (Linn.) Willk. & Lange.

vaginatum Raf. l.c., nom. (Cistus vaginatus sensu Jacq.; C. symphytifolius Lam.). Canary Islands = Cistus symphitifolius Lam. et var. vaginatus (Dryand.) Grosser.

#TROPENDRIA Raf. New Fl. N. Am. 1:95. 1836, descr., nom. provis., subgen. Lechea Linn.

XOLANTHA Raf. Car. Nuov. Gen. Sp. Sicil. 73. 1810, descr.=

Helianthemum Mill. (1754).
racemosa Raf. op. cit. 74. t. 18. f. 1, descr.; Stat. Gen. Sicil.
27. 1810, nom. Sicily=Helianthemum pilosum (Linn.) Benth.

XOLANTHES Raf. Sylva Tellur. 132. 1833, descr.=Xolantha Raf. (1810) = Helianthemum Mill. (1754)

guttata Raf. 1.c., nom. (Cistus guttatus Linn.)=Tuberaria guttata (Linn.) Grosser.

racemosa Raf. 1.c., descr. (Xolantha racemosa Raf.). Sicily= Helianthemum pilosum (Linn.) Benth.

# VIOLACEAE

CUBELIUM Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom.; Western Minerva 41. 1824, nom. (Viola concolor Forst.), iter. Fox, Science II. 12:212. 1900; Atl.

Jour. 1:144. 1832, nom., nota (Viola concolor Forst.; Solea Ging.); Good Book 40. 1840, nom. (Solea Ging.)=Hybanthus Jacq. (1760), nom. conserv. (Calceolaria Loefl., 1758; Aembilla Adans., 1763).

concolor Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom. (Viola [concolor Forst.]). Eastern North America= Hybanthus concolor (Forst.) Spreng.

\*heterophylum Raf. Herb. Raf. 67, 1833, nom. Cumberland.

\*heterophylum Raf. Herb. Raf. 67. 1833, nom. Cumberland Mountains.

parviflorum Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom. Kentucky.

VIOLA Linn.

\*aetnensis Raf. Chloris Aetn. 9. 1815, nom. Sicily. \*decumbens Raf. Am. Jour. Sci. 1:81. 1818, nom. Penn-

sylvania. \*eriocarpa Raf. Atl. Jour. 1:152. 1832, descr. Near Lake Erie or Lake Ontario.

\*fusca Raf. Herb. Raf. 68. 1833, nom. Alleghany Mountains. †gibbosa Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818, nom. Alleghany Mountains or Ohio.

\*glechomifolia Raf. Herb. Raf. 51. 1833, nom. Rocky Mountains or Oregon.

\*heterophylla Raf. Med. Repos. II. 5:354. 1808, nom.; Jour. Bot. (Paris) 2:174. 1809, nom. Central Atlantic United

†nephrodes Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818,

nom. Alleghany Mountains or Ohio.
ovata Raf. Am. Jour. Sci. 1:81. 1818, nom.; Ging. in DC.
Prodr. 1:293. 1824, nom. in syn. sub Viola primulaefolia tovata Raf. Linn. var. ? ovata Ging.

\*parvifolia Raf. op. cit. 82, nom. New Jersey. \*serotina Raf. Herb. Raf. 68. 1833, nom. Alleghany Moun-

tains. tenella Raf. Med. Repos. II. 5:354. 1808, nom.; Jour. Bot. (Paris) 2:174. 1809, nom.; Am. Monthly Mag. Crit. Rev. 1:359. 1817, nom.; op. cit. 2:176. 1818, nom., nota (=Viola bicolor Pursh, non Glib, fide Raf. l.c.); op. cit. 4:191. 1819, nom. (Viola bicolor Pursh); Jour. Phys. Chim. Hist. Nat. 19:258, 1819, nom. (Viola bicolor Pursh). Eastern North America=V. kitaibeliana R. & S. var. rafinesquii (Greene) Fernald, Rhodora 40:143. 1938.

# FLACOURTIACEAE

ANAVINGA Adans. (1763); Raf. Sylva Tellur. 149. 1838, descr. =Casearia Jacq. (1760). comocladifolia Raf. l.c., nom. [Casearia comocladifolia Vent.].

West Indies.

ilicifolia Raf. 1.c., nom. (Casearia ilicifolia Vent.). Santo Domingo.

BEDOUSIA Dennst. = Casearia Vent. (1760). aromatica Raf. ex Jacks\*. Ind. Kew. 1:283. 1893 (Bedusia aromatica Raf.). India=Casearia tomentosa Roxb.

BEDUSIA Raf. Sylva Tellur. 11. 1838, descr. = praec. \*aromatica Raf. 1.c., descr. (Tsjerou-Kanneli Rheede, Hort. Malabar. 5:99. t. 50. 1685). India=Casearia tomentosa Roxb.

CHETOCRATER Raf. Sylva Tellur. 149. 1838, descr. = Casearia

Jacq. (1760). hirta Raf. l.c., nom. (Casearia hirta Sw.). West Indies. javitensis Raf. l.c., nom. (Casearia javitensis H.B.K.). South America.

tinifolia Raf. 1.c., nom. (Casearia tinifolia Vent.). Hab.? MAROTTIA Raf. Sylva Tellur. 155. 1838, descr.=Hydnocarpus Gaertn. (1788).

oleosa Raf. I.c., descr. (Marotti Rheede, Hort. Malabar. 1:65. t. 36. 1678). India = Hydnocarpus wightiana Blume =H. laurifolia (Dennst.) Sleumer.

## PASSIFLORACEAE

\*BALDUINIA Raf. Jour. Phys. Chim. Hist. Nat. 89:260. 1819, nom. (Passiflora peltata Pursh)=Passiflora Linn.

BALDWINIA Raf. Am. Monthly Mag. Crit. Rev. 2:267. 1818, nom.; op. cit. 4:189. 1819, nom.=Passiflora Linn. peltata Raf. ex Jacks\*. Ind. Kew. 1:265. 1893 (Passiflora peltata Pursh). North America.

#BALOSTIS Raf. Fl. Tellur. 4:104. 1836 [1838], descr., sub-

gen. Tacsonia Juss. (Type, Passiflora glauca Ait.) = Passiflora Linn.

BLEPHISTELMA Raf. Fl. Tellur. 4:103. 1836 [1838], descr.= Passiflora Linn.

aurantia Raf. 1.c., descr. (Murucuja aurantia Pers.; Passiflora aurantia Forst. f.; Andr. Bot. Repos. 5: t. 295. 1803). New Caledonia.

ERNDELIA Neck.; Raf. Fl. Tellur. 4:104. 1836 [1838], descr. =Passiflora Linn.

reflexisiora Raf. 1.c., nom. (Passistora reflexistora Cav.; Tacsonia reflexistora Juss.). Ecuador.

MACROPHORA Raf. Fl. Tellur. 4:103. 1836 [1838], descr.=

Passiflora Linn. sanguinea Raf. 1.c., descr. (Passiflora sanguinea Sm.). West Indies.

#MARACOA Raf. Sylva Fl. Tellur. 4:102. 1836 [1838], descr.,

subgen. Passiflora Linn.

MEIOPERIS Raf. Fl. Tellur. 4:103. 1836 [1838], descr.= Passiflora Linn.

angustifolia Raf. 1.c., nom. (Passiflora angustifolia Sw.). West Indies=P. suberosa Linn. var. angustifolia (Sw.)

hederacea Raf. 1.c., nom. (Passiflora hederacea Cav.). Tropical America=P. suberosa Linn. var. hederacea (Cav.) Mast.

minima Raf. 1.c., nom. (Passiflora minima Linn.). Tropical America=P. suberosa Linn. var. minima (Linn.) Mast. multiflora Raf. 1.c., nom. (Passiflora multiflora Linn.). Santo

Domingo.

pallida Raf. l.c., nom. (Passiflora pallida Linn.). Tropical America=P. suberosa Linn. var. pallida (Linn.) Mast. pannosa Raf. l.c., nom. (Passiflora pannosa Sw.). West Indies. Tropical

peltata Raf. 1.c., nom. (Passiflora peltata Cav.). America=P. suberosa Linn. var. lineariloba (Hook. f.) Mast.

suberosa Raf. 1.c., nom. (Passiflora suberosa Linn.). Tropical America.

ODOSTELMA Raf. Fl. Tellur. 4:104. 1836 [1838], descr.=
Tacsonia Juss. (1789)=Passiflora Linn.
adulterina Raf. 1.c., nom. (Tacsonia adulterina Juss.). Co-

pedunculata Raf. 1.c., nom. (Tacsonia peduncularis Juss.).

PEREMIS Raf. Fl. Tellur. 4:104. 1836 [1838], descr.=Passiflora Linn.

orbiculata Raf. 1.c., nom. (Murucuja orbiculata Pers.; Passiflora orbiculata Cav.). West Indies=Passiflora murucuja Linn.

PERICODIA Raf. Fl. Tellur. 4:104. 1836 [1838], descr.= Passiflora Linn.

perfoliata Raf. 1.c., nom. (Passiflora perfoliata Linn.). West

Indies. #PERIMNA Raf. Fl. Tellur. 4:104: 1836 [1838], descr., sub-

gen. Tacsonia Juss. (1789) = Passiflora Linn.

#SIPHOSTEGIA Raf. Fl. Tellur. 4:104. 1836 [1838], descr., subgen. Tacsonia Juss. (1789) = Passiflora Linn.

SYNACTILA Raf. Fl. Tellur. 4:104. 1836 [1838], descr.= Passiflora Linn.

viridiflora Raf. 1.c., nom. (Passiflora viridiflora Cav.). Mexico.

TRIPSILINA Raf. Fl. Tellur. 4:103. 1836 [1838], descr.= Passiflora Linn.

fetida Raf. l.c., nom. (Passiflora foetida Linn.; Sims, Bot. Mag. 53: t. 2619. 1826). Tropical America.

#TRISTEGIA Raf. Fl. Tellur. 4:104. 1836 [1838], descr., subgen. Tacsonia Juss.=Passiflora Linn.

XEROGONA Raf. Fl. Tellur. 4:103. 1836 [1838], descr.=Pas-

siflora Linn.

biloba Raf. I.c., descr. (Passiflora capsularis Linn.; Hook. Bot. Mag. 55: t. 2868. 1828). Tropical America.

# CARICACEAE

CARICA Linn.

\*floridana Raf. New Fl. N. Am. 3:95. 1836 [1838], nom. nov. provis. Carica papaya Linn. Florida.

# LOASACEAE

\*NUTALLA Raf. Am. Monthly Mag. Crit. Rev. 2:266. 1818, nom. (Bartonia Sims, 1804, non Muhl., 1801) = seq. 
\*NUTTALIA Raf. Fl. Tellur. 1:89. 1836 [1837], nom.; Act. Soc. Linn. Bordeaux 6:267. 1834, nom. = Mentzelia Linn.

NUTTALLA Raf. Am. Monthly Mag. Crit. Rev. 2:175-176. 1818 ("Nuttallae") nom. nov. Bartonia Sims (1804), non Muhl. (1801); op. cit. 2:266. 1818, nom. (Bartonia Sims); Mulli. (1801); Op. Clt. 2:200. 1819, nom. (Bartonia Sims, 1804, non Muhl. 1801); Jour. Phys. Chim. Hist. Nat. 89:257. 1819; nom., nota (Bartonia Sims, 1804, non Muhl., 1801) = praec. \*grandiflora Raf. Casket. 1828:379, f. 15. 1828, descr.; Sat.

Eve. Post 7(367):[4]. 1.f. 1828, descr. Missouri, Arkansas = Mentzelia decapetala (Pursh) Urban & Gilg.

\*ornata Raf. Am. Florist f. 16. 1832 [Bartonia ornata Pursh]. North America = Mentzelia ornata (Pursh) Torr. & Gray. \*vespertina Raf. Casket 1828:379. 1828, nom.; Sat. Eve.

Post 7(367):[4]. 1828, nom. North America.
\*NUTTALLIA Raf. Am. Monthly Mag. Crit. Rev. 1:358. 1817, nom., nota (Bartonia Sims); op. cit. 2:175. 1818, nom., nota, sphalm., "Nuttallae" (Bartonia Sims); Fl. Tellur.

nota, sphalm., "Nuttallae" (Bartonia Sims); Fl. Tellur.

1:89. 1836 [1837], nom.=Mentzelia Linn.

\*RHOANTHUS Raf. Act. Soc. Linn. Bordeaux 6:267. 1834,
nom. nov. provis. Nuttallia Raf. (1817) (Bartonia Sims
1804), iter. Merr. Proc. Am. Philos. Soc. 86:88. 1942. op. cit. 90, nom. non Bartonia Muhl. (1801) = Mentzelia

### BEGONIACEAE

TRILOMISA Raf. Fl. Tellur. 2:91. 1836 [1837], descr.= Begonia Linn.

undulata Raf. l.c., descr. (Begonia undulata Schott; Hook. Bot. Mag. 54: t. 2723. 1827). Brazil.

## CACTACEAE

CACTUS Linn.

\*clavulatus Raf. Herb. Raf. 54. 1833, nom. (Cactus viviparus Nutt.?). Northwestern United States (Lewis & Clark).

\*cyclophylus Raf. 1.c., nom. (Cactus fragilis Nutt.?). Northwestern United States (Lewis & Clark) =? Opuntia fragilis

(Nutt.) Haw.

humifusus Raf. Ann. Nat. Ann. Synop. 15. 1820, descr.; First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom. (Cactus opuntia auct. Am.). New York to Kentucky and Missouri=Opuntia humifusa Raf. (O. rafinesquii Engelm.).

\*mesacantha Raf. Western Minerva 41. 1821, nom., iter. Fox, Science II. 12:213. 1900. Kentucky=Opuntia mesacantha

Raf.=O. humifusa Raf.

\*noctiflorus Raf. Am. Florist f. 18. 1832, nom., cult. "Night-blooming Cereus" Cult=Cactus grandiflorus Linn. (Seleni-

\*ovatus Raf. Herb. Raf. 54. 1833, nom. (Cactus mammillaris Nutt.?). Northwestern United States (Lewis & Clark). \*CERCUS Raf. Act. Soc. Linn. Bordeaux 6:267. 1834, nom.,

sphalm.=Cereus Linn. OPUNTIA Mill.

bartrami Raf. Atl. Jour. 1:146. 1832, descr. (sphalm. bartami).

Southern United States.

cespitosa Raf. Med. Fl. 2:247. 1830, nom.; Seringe, Bull. Bot. 1:216. 1830, descr.; iter. Schlecht. Linnaea 8: Lit.-Ber. 81. 1833; Atl. Jour. 1:147. 1832, descr. Kentucky, Tennessee (O. rafinesquii Engelm.) = O. humifusa Raf. \*coccinea Raf. Med. Fl. 2:247, nom., 248, descr. 1830, United

States.

humifusa Raf. 1.c., nom. Atl. Jour. 1:147. 1832, nom.; Seringe, Bull. Bot. 1:216. 1832, nom., iter. Schlecht. Linnaea 8: Lit.-Ber. 81. 1833 (Cactus humifusus Raf.). Kentucky (O. rafinesquii Engelm.).

maritima Raf. l.c., nom.; Atl. Jour. 1:146. 1832, descr. (sphalm. mritima). Carolina to Florida.

mesacantha Raf. l.c., nom.; Seringe, Bull. Bot. 1:216. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 81. 1833; Atl. Jour. 1:147. 1833, descr., sphalm. mesacaatha. Kentucky= O. humifusa Raf.

spinalba Raf. Atl. Jour. 1:147. 1832, descr. Florida. \*UPUNTIA Raf. New Fl. N. Am. 3:94. 1836 [1838], nom., sphalm.=Opuntia Mill. (1752).

## THYMELAEACEAE

BALENDASIA Raf. Fl. Tellur. 4:105. 1836 [1838], descr.= Passerina Linn.

ericoides Raf. 1.c., descr. (Passerina ericoides Linn.). South Africa.

BELVALA Adans.; Raf. Fl. Tellur. 4:104. 1836 [1838], descr.= Struthiola Linn. (1767), nom. conserv. (Belvala Adans.,

spicata Raf. op. cit. 105, nom. (Passerina dodecandra Linn.). South Africa=Struthiola dodecandra (Linn.) Druce (S.

erecta Linn.). DAPHNE Linn.

\*lateriflora Raf. Aut. Bot. 145. 1840, descr. Europe=Daphne alpina Linn.

\*mezeron Raf. l.c., nom.=D. mezerum Linn. Europe. \*undulata Raf. l.c., descr. ? Siberia=? Daphne laureola

\*DESSENIA Raf. Aut. Bot. 11. 1840, nom. (non Dessenia Adans.; fide Raf. Aut. Bot. 147. 1840, sub Struthiola virgata Linn.) = Struthiola Linn. (1767), nom. conserv. (Belvala Adans., 1763).

\*scoparia Raf. 1.c., nom. (Struthiola erecta Linn.). South

Africa.

\*DESSENIA Raf. Fl. Tellur. 4:106. 1836 [1838], descr., non Adans. (1763) = Lasiosiphon Fiesen. (1838).

daphnefolia Raf. 1.c., descr. (Gnidia daphnaefolia Linn. f.). Madagascar=Lasiosiphon pubescens (Lam.) Decne.

hirsuta Raf. 1.c., descr. [Gnidia daphnaefolia Linn. f. var. hirsuta Linn. f. Suppl. 225. 1781]. Madagascar=Lasiosiphon pubescens (Lam.) Decne.

lanceolata Raf. 1.c., descr. (Gnidia capitata Linn. f.). South Africa=Lasiosiphon capitatus (Linn. f.) Burtt Davy (L. linifolius Decne.).

GASTRILIA Raf. Fl. Tellur. 4:105. 1836 [1838], descr.= Thymelaea Endl. (1848), nom. conserv. (Sanamunda Adans., 1763; Ligia Fusano, 1788). geminata Raf. 1.c., descr. (Daphne dioica Linn.). Southern

Europe=Thymelaea dioica (Linn.). All.

umbellata Raf. 1.c., descr. (Daphne occidentalis Sw.). West Indies = Daphnopsis occidentalis (Sw.) Krug & Urban.

LACHNEA Linn. = Lachnaea Linn.

\*buxifolia Raf. Fl. Tellur. 4:106. 1836 [1838], nom. sub Nemoctis Raf. South Africa=Lachnaea buxifolia Lam. (Gnidia filamentosa Linn. f.; Lachnaea filamentosa Gilg, non Meissn.).

NEMOCTIS Raf. Fl. Tellur. 4:106. 1836 [1838], descr.=

Lachnaea Linn.

angustifolia Raf. l.c., descr. South Africa=seq.
buxifolia Raf. l.c., descr. (Gnidia filamentosa Linn. f.; Lachnaea buxifolia Lam.). South Africa=Lachnaea buxifolia Lam.) (L. filamentosa Gilg, non Meissn.).

OCTOPLIS Raf. Fl. Tellur. 4:105. 1836 [1838], descr.=Gnidia

Linn.

polistachya Raf. 1.c., descr. (Gnidia polystachya Berg.).

South Africa=Gnidia polystachya Berg.

PAUSIA Raf. Fl. Tellur. 4:105. 1836 [1838], descr., non Pausia
Raf. Sylva Tellur. 9. 1838=Thymelaea Endl. (1848), non.
conserv. (Sanamunda Adans., 1763; Ligia Fusano, 1788; Pausia Raf., 1838).

orientalis Raf. 1.c., descr. (Passerina orientalis Willd.). Mediterranean region=Thymelaea orientalis Willd.) Meissn.

SANAMUNDA Adans.; sensu Raf.=Passerina Linn.
\*\*adpressa Raf. Aut. Bot. 147. 1840, descr. (Passerina filiformis Linn.). South Africa.

\*axillaris Raf. op. cit. 146, descr. (Passerina lateriflora hort.). South Africa.

\*grandiflora Raf. 1.c., nom. (Passerina grandiflora Linn.). South Africa.

\*subulata Raf. op. cit. 147, descr. (Gnidia pinifolia Linn.).

South Africa. \*umbellata Raf. 1.c., descr. (Passerina filiformis auct.). South

Africa. SCOPOLIA Linn. f. (1781), non Jacq. (1764) = Daphne Linn. pendula Raf. Fl. Tellur. 4:106. 1836 [1838], descr. (Scopolia

composita Linn. f.; Daphne pendula Sm.). Java=Daphne composita (Linn. f.) Gilg. STEIROCTIS Raf. Fl. Tellur. 4:105. 1836 [1838], descr.=

Lachnaea Linn.

capitata Raf. 1.c., nom. (Passerina capitata Linn.). South Africa=Lachnaea capitata (Linn.) Meisn.

uniflora Raf. 1.c., nom. (Passerina uniflora Linn.). South

Africa = Cryptadenia uniflora (Linn.) Meisn.
\*STRUSIOLA Raf. Aut. Bot. 147. 1840, nom. nov. Struthiola Linn. (1767), nom. conserv. (Belvala Adans., 1763).

\*scoparia Raf. op. cit. 148., nom. (Dessenia scoparia Raf. op. cit. 11; Struthiola erecta Linn.). South Africa.

\*virgata Raf. op. cit. 147, nom. (Struthiola virgata Linn.). South Africa.

Aut. Bot. 146. 1840, descr.; Pennell, Bull. TARTONIA Raf. Torr. Bot. Club 48:95. 1921, nom.=Thymelaea Endl. (1848), nom. conserv. (Sanamunda Adans., 1763; Ligia Fusano, 1788).

\*cuneifolia Raf. 1.c., descr. Italy, Greece.
obovata Raf. 1.c., descr. (Daphne tartonraira Linn.; Passerina tartonraira Schrad.; Pennell, 1.c., nom. Southern France and Spain=Thymelaea tartonraira (Linn.) All.

\*vovatifolia Raf. I.c., descr. (Passerina hirsuta Linn.). Crete. TUMELAIA Raf. Fl. Tellur. 4:105. 1836 [1838], descr., nom. nov. Sanamunda Neck., 1790, non Adans., 1763=Daphne

XAIASME Raf. Fl. Tellur. 4:106. 1836 [1838], descr., subgen. Dessenia Adans.=Stellera Linn.

bicolor Raf. 1.c., descr. (Stellera chamaejasme Linn.). Siberia.

#### ELAEAGNACEAE

ELAEAGRUS Pallas=Elaeagnus Linn. \*angustifolia Raf. Aut. Bot. 144. 1840, nom. (Elaeagnus angustifolia Linn.). Mediterranean region.

\*orientalis Raf. l.c., nom. (Elaeagnus orientalis Linn.). Arabia.

\*ELEAGRUS Raf. Am. Monthly Mag. Crit. Rev. 2:176. 1818, nom.=Elaeagnus Linn.

LEPARGYREA Raf. Am. Monthly Mag. Crit. Rev. 2:176. 1818, nom., nota (Hippophaë argentea Pursh); op. cit. 4: 188, 195. 1819, nom. nov. Shepherdia Nutt.; Jour. Phys. Chim. Hist. Nat. 89:260. 1819, nom. (Shepherdia Nutt.); Med. Fl. 2:237. 1830, nom. (Shepherdia Nutt.) = Shepherdia

Nutt. (1818), nom. conserv. (Lepargyrea Raf., 1818).
\*missurica Raf. Herb. Raf. 40. 1833, nom. (Shepherdia [argentea] Nutt.). Central United States=Shepherdia argentea (Pursh) Nutt.

\*SHEPERDIA Raf. Am. Monthly Mag. Crit. Rev. 4:195. 1819, nom.; Jour. Phys. Chim. Hist. Nat. 89:260. 1819, nom.= Shepherdia Nutt.

# LYTHRACEAE

AMMANNIA Linn.

auriculata Raf. Atl. Jour. 1:146. 1832, nom. nov. Ammannia ramosior sensu Torr. Ann. Lyc. Nat. Hist. N. Y. 2:199. 1827. Central United States=Rotala ramosior (Linn.) Koehne. \*diffusa Raf. Aut. Bot. 39. 1840, descr. West Indies=A.

auriculata Willd.

\*linearifolia Raf. 1.c., descr. (Ammannia ramosa Hill=A. ramosior Linn.). North America=Rotala ramosior (Linn.) Koehne, var. interior Fernald & Griscom.

\*longifolia Raf. l.c., descr. Arkansas and Louisiana=A. coc-

cinea Rottb. \*multicaulis Raf. 1.c., descr. Virginia=Rotala ramosior

(Linn.) Koehne.

\*teres Raf. I.c., descr. Virginia to Carolina. (A. koehnei Britton, 1891); see Fernald, Rhodora 46:49. 1944.

BERGENIA Raf. Sylva Tellur. 102. 1838, descr., non Moench (1794) = Cuphea P. Browne (1756).

siphilitica Raf. ex Jacks\*. Ind. Kew. 1:294. 1893 [Cuphea serpyllifolia H.B.K.]. Mexico to South America.

\*BOYKIANA Raf. Neogen. 2. 1825, descr. (Ammannia humilis

Michx.); Act. Soc. Linn. Bordeaux 6:266. 1834, nom., iter. Merr. Proc. Am. Philos. Soc. 86:88. 1942, nota=seq.

\*BOYKINIA Raf. New Fl. N. Am. 4:66. 1836 [1838], nom.; Aut. Bot. 9. 1840, descr. non Nutt. (1834)=Rotala Linn. humilis Raf. Aut. Bot. 1.c., nom. (Ammannia humilis Linn.) (Ind. Kew. 1:329. 1893 sub Boykinia Nutt.); Merr. Proc. Am. Philos. Soc. 86:89. 1942, nom. North America=Rotala ramosior (Linn.) Koehne.

\*CESDELIA DC. ex Raf. Act. Soc. Linn. Bordeaux 6:266. 1834, nom., nota, iter. Merr. Proc. Am. Philos. Soc. 86:88. 1942, op. cit. 89, nom.=Ammannia Linn.

CUPHEA P. Browne

†albida Raf. Herb. Raf. 68. 1833, nom.; New Fl. N. Am. 2:32. 1836 [1837], descr. Pennsylvania, north of Carlisle= C. petiolata (Linn.) Koehne.

\*siphylitica Raf. Sylva Tellur. 102. 1838, nom. sub Bergenia, sphalm. Mexico to South America = Cuphea serpyllifolia

Ĥ.B.K.

\*DECADENIUM Raf. New Fl. N. Am. 1:62. 1836, nom. nov. Adenaria H.B.K., sub Adenarium Raf.=Adenaria H.B.K. (1823)

\*DECADONIA Raf. Act. Soc. Linn. Bordeaux 6:274. 1834, nota, nom. nov. Adenaria H.B.K.; Merr. Proc. Am. Philos.

Soc. 86:88, 89, nom. 1942=Adenaria H.B.K. (1823).

DIDIPLIS Raf. Atl. Jour. 1:177, 1833, descr.; Herb. Raf. 23.
1833, descr.; New Fl. N. Am. 4:9. 1836 [1838], descr.; Good Book 46. 1840, nom.=Peplis Linn. subgen. Didiplis (Raf.) Koehne.

linearis Raf. 11.cc., descr.; Act. Soc. Linn. Bordeaux 6:266. 1834, nom., nota. (Peplis diandra Nutt.); Aut. Bot. 9. 1840, nom. (Peplis diandra Nutt.). Arkansas=Peplis diandra Nutt. ex DC. (1828) (Didiplis diandra Wood).

DIPETALON Raf. Sylva Tellur. 103. 1838, descr. = Cuphea P. Browne (1756).

speciosum Raf. I.c., descr. (Lythrum dipetalum Linn.). South

America=Cuphea dipetala (Linn.) Koehne. **EDITELES** Raf. Sylva Tellur. 103. 1838, descr.=Lythrum Linn. thymifolia Raf. l.c., nom. (Lythrum thymifolia Linn.). Southern Europe, North Africa = Lythrum thymifolia Linn.

ENDECARIA Raf. Sylva Tellur. 102. 1838, descr. = Cuphea P. Browne (1756).

coccinea Raf. I.c., descr. (Cuphea llavea sensu Lindl. Bot. Reg. 23: t. 1386. 1837, non La Llave & Lexarza) non Cuphea coccinea DC. (1828). Mexico=Cuphea hookeriana Walp. (1843)

HEXOSTEMON Raf. First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom.; Neogen. 3. 1825, nom. alt. Ododeca Raf. (Pythagorea Raf. 1819, non Lour. 1790) = Lythrum Linn. virgatum Raf. First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom. (Lythrum virgatum Linn.). Europe.

MELFONA Raf. Sylva Tellur. 103. 1838, descr.=Cuphea P. Browne (1756).

purpurea Raf. l.c., nom. (Lythrum melanium Linn.). West Indies=Cuphea melanium (Linn.) R. Br.

MOZULA Raf. Jour. Phys. Chim. Hist. Nat. 91:71. 1820, nom. nov. Pythagorea Raf. (1819), non Lour. (1790)=Lythrum Linn.

NEXILIS Raf. New Fl. N. Am. 4:9. 1836 [1838], descr.= Rotala Linn. (Type Peplis indica Willd.=Rotala indica (Willd.) Koehne).

ODODECA Raf. Neogen. 3. 1825, nom. nov. Pythagorea Raf. 1819, non Lour. 1790; Act. Soc. Linn. Bordeaux 6:267. 1834, nom., subgen. Lythrum Linn. Lythrum Linn. \*PHILEXIA Raf. Am. Monthly Mag. Crit. Rev. 4:193. 1819,

nom.=Lythrum Linn.

PYTHAGOREA Raf. Jour. Phys. Chim. Hist. Nat. 89:96. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 237. 1820, descr.; Jour. Phys. Chim. Hist. Nat. 91:71. 1820, nom (Mozula Raf.); Ann. Gén. Sci. Phys. 7:19. 1820, nom.; Act. Soc. Linn. Bordeaux 6:267. 1834, nom. (Ododeca Raf.); Fl. Tellur. 1:16. 1836 [1837], nom. non Lour. (1790)=Lythrum Linn.

alata Raf. ex Jacks\*. Ind. Kew. 2:670. 1895 (Lythrum alatum

Pursh). Central United States.

linearis Raf. ex Jacks\* l.c. (Lythrum lineare Linn.). South-eastern United States.

virgata Raf. ex Jacks\*. 1.c. (Lythrum virgatum Linn.). Europe.

QUIRINA Raf. Sylva Tellur. 102. 1838, descr.=Cuphea P. Browne (1756).

microphyla Raf. 1.c., descr. (Cuphea microphylla H.B.K.). Tropical America.

RONCONIA Raf. Aut. Bot. 9. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:91. 1921, nom.=Ammannia Linn.

triflora Raf. l.c., descr. (Ammannia auriculata auct.); Pennell, l.c., nom.=Ammannia auriculata Willd.

SOTULARIA Raf. Sylva Tellur. 98. 1838, descr. (Catuadamboe

Adans.) = Lagerstroemia Linn.

malabarica Raf. l.c., nom. (Katou-Adamboe Rheede, Hort. Malabar. 4:47. t. 22. 1683). Malabar=Lagerstroemia hirsuta (Lam.) Willd., sp. dub. sed ut videtur quoad Rheede t. 22, excl. descr. Rheede=Lagerstroemia speciosa (Linn.) Pers. (L. flos-reginae Retz.).

#### SONNERATIACEAE

KAMBALA Raf. Sylva Tellur. 19. 1838, descr. = Sonneratia Linn. f. (1781).

pendula Raf. 1.c., descr. (Sonneratia apetala Buch.-Ham.). Burma.

MYCOSTYLIS Raf. Sylva Tellur. 19. 1838, nom. alt. Kambala Raf. (Type Sonneratia apetala Buch.-Ham.)=praec.

## CRYPTERONIACEAE

\*HENSLEVIA Raf. Alsogr. Am. 30. 1838, nom., sphalm.= Henslowia Wall. (1832)=Crypteronia Blume (1826).

#### RHIZOPHORACEAE

KARKANDELA Raf. Sylva Tellur. 106. 1838, descr. (Karekandel Adans.) = Carallia Roxb. (1814), nom. conserv. (Karekandel Adans., 1763; Diatoma Lour., 1790; Barraldeia Thou., 1806).

malabarica Raf. 1.c., nom. (Kare-Kandel Rheede, Hort. Malabar. 5:25. t. 13. 1678 [sphalm. Raf. "Rheede 1. t. 13"]). India=Carallia brachiata (Lour.) Merr. (C. integerrima

RHIZOPHORA Linn. \*mangium Raf. Ann. Gén. Sci. Phys. 6:80. 1820, nom. [prob. Mangium candelabrium Rumph. Herb. Amb. 3:108. t. 71, 72. 1743] = Rhizophora apiculata Blume, 1827 (R. candelaria DC., 1828).

#### NYSSACEAE

NYSSA Linn.

ciliata Raf. Atl. Jour. 1:176. 1833, descr.; Herb. Raf. 21. 1833, descr. Texas=N. sylvatica Marsh.

STREBLINA Raf. Aut. Bot. 74. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:93. 1821. Ex descr.=Nyssa Linn. denticulata Raf. op. cit. 75, descr.; Pennell, 1.c., nom. Florida=Nyssa aquatica Linn.

### COMBRETACEAE

\*CACUCIA Raf. Sylva Tellur. 99. 1838, nom.=Cacoucia Aubl. (1775)

RHIZAERIS Raf. Sylva Tellur. 90. 1838, descr.=Laguncularia Gaertn. f. (1805).

alba Raf. 1.c., nom. (Conocarpus racemosa Linn.). West

Indies = Laguncularia racemosa (Linn.) Gaertn. f. SCHOUSBEA Raf. Princ. Somiol. 29. 1814, nom. = Schousboea Willd. (1799) = Cacoucia Aubl. (1775).

### MYRTACEAE

AGUAVA Raf. Sylva Tellur. 107. 1838, descr.=Myrcia DC. (1826).

guianensis Raf. 1.c., nom. (Eugenia guianensis Aubl.). Guiana.

tomentosa Raf. 1.c., nom. (Eugenia tomentosa Aubl.). Guiana=Myrcia tomentosa (Aubl.) DC.

ALLOSTIS Raf. Sylva Tellur. 104. 1838, descr.=? Baeckea

AMYRSIA Raf. Sylva Teilur. 106. 1838, descr. = Eugenia Linn. compressa Raf. ex Jacks\*. Ind. Kew. 1:113. 1893 (Myrtus compressa H.B.K.). South America = Eugenia compressa (H.B.K.) DC.

discolor Raf. ex Jacks\*. 1.c. (Myrtus discolor H.B.K.). South America=Eugenia discolor (H.B.K.) DC.

foliosa Raf. ex Jacks\*. 1.c. (Myrtus foliosa H.B.K.). South America = Eugenia foliosa (H.B.K.) DC. microphyla Raf. ex Jacks\*. 1.c. (Myrtus microphylla Humb.

& Bonpl.). South America.

BECKEA St. Hil. = Baeckea Linn.

\*chinensis Raf. Sylva Tellur. 103. 1838, nom.=Baeckea chinensis Gaertn. = B. frutescens Linn. Southeastern China. \*densiflora Raf. 1.c., nom. = Baeckea densiflora Sm. Australia.

BECKIA Raf. Sylva Tellur. 104. 1838, nom. sub. Allostis Raf. = Baeckea Linn.

\*BURCARDIA Raf. Sylva Tellur. 106. 1838, descr.=Campomanesia Ruiz & Pavon (1797).
†aromatica Raf.<sup>23</sup> Sylva Tellur. 106. 1838, nom. (Psidium aromaticum Aubl.). Guiana=Campomanesia aromatica (Aubl.) Griseb.

23 Both of these binomials are erroneously entered in Index Kewensis 1:361. 1893 under the turneriaceous genus Burcardia Schreb. (1789) = Piriquetia Aubl. (1775).

BURCARDIA (continued).

†grandiflora Raf. l.c., nom. (Psidium grandiflorum Aubl.). Guiana=Campomanesia grandiflora (Aubl.) Sagot. CLUACENA Raf. Sylva Tellur. 104. 1838, descr.=Myrtus

Linn.

myrsinoides Raf. 1.c., nom. (Myrtus myrsinoides H.B.K.). Peru.

vaccinoides Raf. 1.c., nom. (Myrtus vaccinioides H.B.K.). Peru.

\*COILOMPHIS Raf. Sylva Tellur. 105. 1838, nom. nov. provis. sub Pimentus saligna Raf. ([Arbor alba minor] Rumph. Herb. Amb. 2:76. t. 17. 1741)=Melaleuca Linn., nom. conserv. (Cajuputi Adans., 1763).

CUMETEA Raf. Sylva Tellur. 106. 1838, descr.=Myrcia DC. (1826).

alba Raf. 1.c., nom. (Eugenia coumete Aubl.). Guiana= Myrcia coumete (Aubl.) DC.

angustifolia Raf. op. cit. 107, nom. [Eugenia angustifolia Lam.]. Santo Domingo=Eugenia pomifera (Aubl.) Urb.

var. angustissima (Berg.) Urb. divaricata Raf. op. cit. 106-107, nom. [Eugenia divaricata Lam.]. West Indies=Myrcia splendens (Sw.) DC.

fragrans Raf. op. cit. 106, nom. [Eugenia fragrans Willd.]. West Indies.

microphyla Raf. 1.c., nom. [Eugenia microphylla A. Rich.]. West Indies.

mini Raf. I.c., nom. [Eugenia mini Aubl.]. Guiana=Myrcia mini (Aubl.) DC.

montana Raf. l.c., nom. [Eugenia montana Aubl.]. Guiana. multiflora Raf. l.c., nom. [Eugenia multiflora Lam.]. Guiana= Myrcia multiflora (Lam.) DC.

tomentosa Raf. l.c., nom. [Eugenia tomentosa Aubl.].
Guiana=Myrcia tomentosa (Aubl.) DC.

\*DISTIXILA Raf. Sylva Tellur. 106. 1838, nom. subnud. "G[en.] vel subg." (Myrtus Linn.) = Myrtus Linn.

EMURTIA Raf. Sylva Tellur. 106. 1838, descr. = Eugenia Linn. emarginata Raf. ex Jacks\*. Ind. Kew. 1:838. 1893 (Myrtus emarginata H.B.K.). Venezuela = Eugenia emarginata emarginata H.B.K.). (H.B.K.) DC.

guayaquilensis Raf. ex Jacks\*. l.c. (Myrtus guayaquilensis H.B.K.). Ecuador=Eugenia guayaquilensis (H.B.K.) DC. micrantha Raf. ex Jacks\*. 1.c. (Myrtus micrantha H.B.K.)

DC. Colombia = Eugenia micrantha (H.B.K.) DC. punicifolia Raf. ex Jacks\*. 1.c. (Myrtus punicaefolia H.B.K.). Venezuela = Eugenia punicaefolia (H.B.K.) DC.

EPLEIENDA Raf. Sylva Tellur. 107. 1838, descr.=Eugenia Linn.

sinemariensis Raf. 1.c., nom. (Eugenia sinemariensis Aubl.). Guiana.

EVANESCA Raf. Sylva Tellur. 105. 1838, descr.=Pimenta Lindl. (1821).

crassifolia Raf. 1.c., nom. (Myrtus dioica Linn.). "America" [Jamaica] = Pimenta dioica (Linn.) Merr. Contr. Gray Herb. 165:37. 1947 (P. officinalis Lindl.). GOMPHOTIS Raf. Sylva Tellur. 103. 1838, descr.=Thrypto-

mene Endl. (1838).

saxicola Raf. 1.c., descr. (Baeckea saxicola A. Cunn. ex Hook. Bot. Mag. 69: t. 3160. 1832). Australia=Thryptomene saxicola (A. Cunn.) Schauer.

LOMASTELMA Raf. Sylva Tellur. 107. 1838, descr.=Acmena DC. (1828).

elliptica Raf. 1.c., nom. (Eugenia elliptica Sm., non Lam.). Merr. & Perry.

MALIDRA Raf. Sylva Tellur. 107. 1838, descr.=Syzygium Gaertn. (1788).

aquea Raf. 1.c., nom. (Eugenia aquea Burm. f.; Jambosa aquea Rumph. Herb. Amb. 1:126. t. 38. 1741). Amboina= Syzygium aqueum (Burm. f.) Alston.

MURRINEA Raf. Sylva Tellur. 104. 1838, descr. (Baeckea sp.) = Baeckea Linn.

MYRTUS Linn. angustifolia Raf. Sylva Tellur. 105. 1838, descr., Africa,

Asia.

buxifolia Raf. op. cit. 104, descr. Greece. \*italica Raf. 1.c., descr.; Aut. Bot. 149. 1840, nom., nota= Myrtus communis Linn. Europe.

var. alba Raf. Sylva Tellur. l.c., nom.

betica Raf. l.c., nom. imbricata Raf. l.c., nom. laurifolia Raf. 1.c., nom. lusitanica Raf. l.c., nom. nigra Raf. 1.c., nom.

lanceolata Raf. op. cit. 105, descr. Africa.

var. belgica Raf. 1.c., nom. latifolia Raf. op. cit. 104, descr. Italy.

var. romana Raf. 1.c., nom. tarentana Raf. 1.c., nom.

OPANEA Raf. Sylva Tellur. 106. 1838, descr. "Types M[yrtus] trinervis Sm. and billardiana K."=Rhodamnia Jack 24 (1822).

OZANDRA Raf. Aut. Bot. 148. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:95. 1921, nom.=Melaleuca Linn., nom.

conserv. (Cajuputi Adans., 1763). \*granulata Raf. l.c., descr. (Melaleuca thymifolia Sm.). Australia.

\*hyssopifolia Raf. 1.c., descr. (Melaleuca "do Sm.," sphalm.= M. hypericifolia Sm.). Australia.

\*thymifolia Raf. 1.c., nom. [Melaleuca thymifolia Sm.]. Australia.

PIMENTUS Raf. Sylva Tellur. 105. 1838, descr.=Pimenta Lindl. (1821).

aromatica Raf. ex Jacks\*. Ind. Kew. 2:527. 1894 (Greggia

aromatica Gaertn.). West Indies=Eugenia greggii Poir. cotinifolia Raf. Sylva Tellur. 105. 1838, descr. (Myrtus cotinifoliis Plum. Pl. Am. 203. t. 208. f. 2. 1759 [=Myrtus cotinifolia J. F. Gmel.]; Myrtus acris Sw.). West Indies=Myrcia citrifolia (Aubl.) Urban.

geminata Raf. 1.c., descr. (Myrtus pomifera, alia, foliis longis & angustis Plum. op. cit. 202. t. 207. f. 2. 1759). West Indies=Eugenia pomifera (Aubl.) Urb. gregia Raf. ex Jacks\*. Ind. Kew. 2:527. 1894 (Myrtus gregia Sw.). West Indies=Eugenia greggii Poir.

laurina Raf. Sylva Tellur. I.c., descr. (Myrtus laurina Retz.; Laurus serrata, floribus spicatis Burm. Thes. Zeyl. 139. t. 62. 1737; Eugenia laurina Willd.). Ceylon=Symplocos

saligna Raf. 1.c., descr. (Myrtus saligna Burm. f.; Arbor minor Rumph. Herb. Amb. 2:76. t. 17. 1741). Moluccas=Melaleuca leucadendra Linn.; see Merrill, Interpret. Rumph. Herb. Amb. 402. 1917.

triflora Raf. l.c., descr. (Myrtus triflora Jacq.). Colombia= Eugenia triflora (Jacq.) Ham.

vera Raf. I.c., nom., nota (Myrtus pimenta Linn.). West Indies = Pimenta officinalis Lindl.

PSIDIUM Linn.

\*cuiavilus Raf. Sylva Tellur. 106. 1838, descr. (Cujavillus Rumph. Herb. Amb. 1:145. t. 49. 1741) = Psidium cujavillus Burm. f.; see Merrill, Interpret. Rumph. Herb. Amb. 391. 1917

TRIPLARINA Raf. Sylva Tellur. 104. 1838, descr.=Baeckea Linn.

camphorata Raf. l.c. descr. (Baeckea camphorata R. Br., Hook. Bot. Mag. 53: t. 2694. 1826). Australia.

# MELASTOMATACEAE

ABROPHAES Raf. Sylva Tellur. 99. 1838, descr.=Miconia Ruiz & Pavon (1794), nom. conserv. (Tamonea Aubl., 1775; Leonicenia Scop., 1777; Zulatia Neck., 1790).

mirabilis Raf. l.c., descr. (Fothergilla mirabilis Aubl.; Melastoma tamonea Sw.). Guiana=Miconia dodecandra

(Desr.) Cogn.

\*ACINODENDRON Raf. Sylva Tellur. 94. 1838, descr.=Acino-dendrum Linn. (1737)=Miconia Ruiz & Pavon (1794), nom. conserv.

\*aureum Raf. 1.c., descr. (Melastoma sp. Sm.). Guiana=? Miconia sp.

\*cymosum Raf. 1.c., descr. (Melastoma acinodendron Linn.). West Indies = Miconia acinodendron (Linn.) Sweet.

\*laxiflorum Raf. 1.c., descr. (Melastoma acinodendron Linn.).
South America=Miconia acinodendron (Linn.) Sweet.

ACINODENDRUM Linn. (1737) = Miconia Ruiz & Pavon (1794), nom. conserv.

<sup>24</sup> Opa Lour. cited by Rafinesque as a synonym of Opanea, is in part, as to Opa odorata Lour., Syzygium Gaertn. (Opa odorata Raf.=Syzygium odoratum (Lour.) DC.; see Merr. & Perry, Jour. Arnold Arb. 19:102. 1938), and in part, as to Opa metrosideros Lour., Raphiolepis Lindl. (O. metrosideros. Lour. = Raphiolepis indica (Linn.) Lindl.); see Merrill, Trans. Am. Philos. Soc. II. 24(2): 179, 285-286. 1935. Myrtus trinervia Sm. is Rhodamnia trinervia Jack and Myrtus billardiana H.B.K. is Myrcia billardiana (H.B.K.) DC.

aureum Raf. ex Jacks\*. Ind. Kew. 1:28. 1893=? Miconia sp. Guiana.

cymosum Raf. ex Jacks\*. l.c.=Miconia acinodendron (Linn.) Sweet. Guiana.

laxiflorum Raf. ex Jacks\*. l.c. = Miconia acinodendron (Linn.) Sweet. Guiana.

ACINOLIS Raf. Sylva Tellur. 95. 1838, descr.=Miconia Ruiz & Pavon (1794), nom. conserv.
elliptica Raf. op. cit. 95, descr. (Melastoma squamulosum

Sm.). Colombia=Miconia squamulosa (Sm.) Triana.

ALIFANA Raf. Sylva Tellur. 101. 1838, descr. = Brachyotum Triana (1867).

canescens Raf. 1.c., nom. (Rhexia canescens Humb. & Bonpl.). Colombia = Brachyotum canescens (Humb. & Bonpl.)

lutescens Raf. 1.c., nom. (Rhexia lutescens Ruiz & Pavon). Peru=Brachyotum lutescens (Ruiz & Pavon) Triana. montana Raf. 1.c., nom. ("Rhez[ia] polypetala R. P," sphalm.,

an Rhexia polystachya Humb. & Bonpl.?). South America. striata Raf. l.c., nom. (Rhexia stricta Humb. & Bonpl.). Colombia=Brachyotum strigosum (Linn. f.) Triana.

ALOSEMIS Raf. Sylva Tellur. 96. 1838, descr.=Rhynchanthera DC. (1828), non Blume (1825), nom. conserv. grandiflora Raf. l.c., nom., sphalm. Aloseris (Melastoma grandiflorum Aubl.). South America=Rhynchanthera grandiflora (Aubl.) DC. villosa Raf. l.c., descr. (sphalm., Aloseris); (Melastoma \*villosum Lodd. Bot. Cab. 9: t. 853. 1824; Sims, Bot. Mag. 53: t. 2630. 1826, non Aubl. (1775). "South America" [Indo-Chinal=Melastoma saironense (O. Kuntze) Merz. Lour. China]=Melastoma saigonense (O. Kuntze) Merr. Jour. Arnold Arb. 29:262. 1948.

zeylanica Raf. 1.c., nom. (Melastoma octandrum Linn.). India. Ceylon=Osbeckia octandra (Linn.) DC.

\*ALOSERIS Raf. Sylva Tellur. 96. 1838, nom. = praec. \*grandiflora Raf. 1.c., descr., sphalm. [Alosemis grandiflora Raf.] (Melastoma grandiflorum Aubl.). South America = Rhynchanthera grandiflora (Aubl.) DC.

ANTHERYTA Raf. Sylva Tellur. 95. 1838, descr. = Tibouchina

Aubl. (1775).

granulosa Raf. op. cit. 96. descr. (Melastoma granulosum Desr.; Ker-Gawl. Bot. Reg. 8: t. 671. 1822; Sims, Bot. Mag. 51: t. 2441. 1824. Brazil=Tibouchina granulosa (Desr.) Cogn.

ANTISOLA Raf. Sylva Tellur. 97. 1838, descr.=Miconia Ruiz & Pavon (1794), nom. conserv. (Tamonea Aubl., 1775; Zulatia Neck., 1790).

racemosa Raf. 1.c., descr. (Melastoma tetrandrum Sw.).

Jamaica=Miconia tetrandra (Sw.) Naud.

AULIPHAS Raf. Sylva Tellur. 95. 1838, descr.=Miconia Ruiz & Pavon (1794), nom. conserv. (Tamonea Aubl. 1775; Zulatia Neck., 1790).

ligustrina Raf. l.c., descr. (Melastoma ligustrinum Sm.). Colombia = Miconia ligustrina (Sm.) Triana.

BELLUCIA Neck.; Raf. Sylva Tellur. 93. 1838, descr., non Adans., 1763, nom. conserv. (Apatitia Desv., 1825). nervosa Raf. 1.c., descr. (Blakea triplinervia Linn.; B. quin-

quenervia Aubl.). Guiana = Bellucia grossularioides (Linn.) Triana.

BOLINA Raf. Sylva Tellur. 101. 1838, descr., nom. nov. Bertolonia Raddi (1820), non Spin. (1809), nec Raf. (1818) = Bertolonia Raddi (1820), nom. conserv. (Triblema R. Br., 1830). conferta Raf. 1.c., nom. (Rhexia conferta Humb. & Bonpl.).

Ecuador, Peru=Centronia excelsa (Spreng.) Triana.

CLASTILIX Raf. Sylva Tellur. 99. 1838, descr.=Miconia

Ruiz & Pavon (1794), nom. conserv. (Tamonea Aubl., 1775; Zulatia Neck., 1790).

mexicana Raf. 1.c., nom. (Melastoma mexicanum Humb. & Bonpl.). Mexico=Miconia mexicana (Humb. & Bonpl.)

tunicata Raf. 1.c., nom. (Melastoma tunicatum Humb. & Bonpl.) = Miconia tunicata (Humbl. & Bonpl.) Naud. Peru? Mexico?

DANCERA Raf. Sylva Tellur. 93. 1838, descr.=Clidemia D. Don (1823).

hirta Raf. 1.c., nom. (Melastoma hirtum Linn.). Tropical America=Clidemia hirta (Linn.) D. Don.

DEROSIPHIA Raf. Sylva Tellur. 101. 1838, descr.=Osbeckia Linn., sect. Pseudodissotis Cogn. (1891).

tubulosa Raf. ex Jacks\*. Ind. Kew. 1:734. 1893 (Osbeckia tubulosa Sm.). Africa.

DUPINETA Raf. Sylva Tellur. 101. 1838, descr.=Osbeckia Linn., sect. Pseudodissotis Cogn. (1891)

multiflora Raf. ex Jacks\*. Ind. Kew. 1:804. 1893 (Osbeckia multiflora Sm.). Sierra Leone, Angola.

EPHYNES Raf. Sylva Tellur. 101. 1838, descr. — Monochaetum (DC.) Naud. 1845 (DC. ut sect. Rhexia, 1828), nom. conserv. (Ephynes Raf., 1838).

bonplandi Raf. l.c., nom. (Rhexia bonplandii Humb. & Bonpl.). Peru, Ecuador, Venez (Humb. & Bonpl.) Naud. Venezuela=Monochaetum bonplandii

EUSTEGIA Raf. Sylva Tellur. 95. 1838, descr.=Conostegia D. Don (1823).

mutisi Raf. l.c., descr. (Melastoma mutisii Humb. & Bonpl.). Colombia = Centronia mutisii (Humb. & Bonpl.). Triana. pulverulenta Raf. l.c., descr. (Melastoma extinctorium Humb.

& Bonpl.). Colombia=Conostegia extinctoria (Humb. & Bonpl.) D. Don.

tomentosa Raf. 1.c., descr. (Melastoma xalapense Humb. & Bonpl.). Mexico=Conostegia xalapensis (Humb. & Bonpl.) D. Don.

EXODICLIS Raf. Sylva Tellur. 97. 1838, descr. = Acisanthera P. Browne (1756).

angustifolia Raf. 1.c., nom. (Melastoma trivalve Aubl.; Rhexia trivalvis Vahl). Guiana=Acisanthera trivalvis (Aubl.) Cogn.

latifolia Raf. 1.c., nom. (Melastoma bivalve Aubl.; Rhexia

bivalvis Vahl). South America=Acisanthera bivalvis (Aubl.) Cogn.

FOLOMFIS Raf. Sylva Tellur. 97. 1838, descr.=Miconia Ruiz Zulatia Neck., 1790).

fragilis Raf. ex. Jacks\*. Ind. Kew. 1:972. 1893 (Melastoma fragile Linn. f.). Guiana=Miconia acinodendron (Linn.) Sweet.

GONEMA Raf. Sylva Tellur. 96. 1838. descr. = Ossaea DC. (1828).

divaricata Raf. 1.c., nom. [Melastoma divaricatum Willd.]. Malaya=Anplectrum divaricatum (Willd.) Triana.

scabrosa Raf. 1.c., nom. (Melastoma scabrosum Linn.). West Indies=Ossaea scabrosa (Linn.) DC.

GYNOMPHIS Raf. Sylva Tellur. 98. 1838, descr.=Tibouchina Aubl. (1775).

argentea Raf. I.c., descr. (Melastoma argenteum Desr.; Rhexia holosericea Humbl. & Bonpl. Monog. Melast. 1:29. t. 12. 1816; Ker-Gawl. Bot. Reg. 4: t. 323. 1818). Brazil=Tibouchina holosericea (Sw.) Baill.

HEDUSA Raf. Sylva Tellur. 101. 1838, descr.=Dissotis Benth. (1849), nom. conserv. (Hedusa Raf., 1838; Hedysa O.

Kuntze, 1891).

grandiflora Raf. ex Jacks\*. Ind. Kew. 1:1099. 1893 (Osbeckia grandiflora Afzel ex Sm.). Tropical Africa=Dissotis grandiflora (Afzel ex Sm.) Benth.

KADALIA Raf. Sylva Tellur. 101. 1838, descr.=Dissotis Benth. (1849), nom. conserv. (Hedusa Raf., 1838: Hedvsa

O. Kuntze, 1891).

antennina Raf. ex Jacks\*. Ind. Kew. 2:1. 1894 (Osbeckia antennina Sm.). Sierra Leone=Dissotis antennina (Sm.) Triana.

rotundifolia Raf. ex Jacks\*. 1.c. (Osbeckia rotundifolia Sm.). Tropical Africa = Dissotis rotundifolia (Sm.) Triana.

LOMANODIA Raf. Sylva Tellur. 97. 1838, descr. = Astronidium

A. Gray (1854) (Naudiniella Krasser, 1893). glabra Raf. I.c., nom. (Melastoma glabrum Forst. f.). So-

ciety Islands=Astronidium glabrum (Forst. f.) Markgr. (Astronia glabra Triana).

mucronata Raf. 1c., nom. (Melastoma mucronatum Desr.).
South America = Miconia holosericea (Linn.) Triana.
LOMANTHERA Raf. Sylva Tellur. 96. 1838, descr. = Tetrazygia

L. C. Richard (1828).
glandulosa Raf. 1.c., nom. (Melastoma glandulosum Sw.).
Jamaica=Tetrazygia hispida (Sw.) Macfad.
MALABATHRIS Raf. Sylva Tellur. 97. 1838, descr.=Mela-

stoma Linn.

cyanoides Raf. 1.c., nom. (Melastoma cyanoides Sm.). Moluccas=Otanthera cyanoides (Sm.). Triana.

nigra Raf. 1.c., nom. (Melastoma malabathricum Linn.). India.

MELASTOMA Linn.

\*axillare Raf. Sylva Tellur. 97. 1838, nom. sub Ocotella Raf. \*jalapense Raf. op. cit. 95, nom. sub Eustegia tomentosa Raf., sphalm.=Melastoma xalapense Humb. & Bonpl.= Conostegia xalapensis (Humb. & Bonpl.) D. Don. Mexico. \*MURIRIA Raf. Sylva Tellur. 99. 1838, nom.=Mouriria Juss. (1789).

OCTELLA Raf. Sylva Tellur. 96. 1838, descr.=Melastoma Linn.

alpina Raf. ex Jacks\*. Ind. Kew. 2:327. 1894 (Melastoma alpinum Sw.). West Indies=Charianthus coccineus (L. C. Rich.) D. Don.

angustifolia Raf. ex Jacks\*. l.c. (Melastoma angustifolium Sw.). West Indies = Tetrazygia angustifolia (Sw.) DC. axillaris Raf. ex Jacks\*. 1.c. (Melastoma axillare Raf.).

Quid?

capillaris Raf. ex Jacks\*. 1.c. (Melastoma capillare Sw.). Jamaica = Clidemia capillaris (Sw.). Griseb.

coccinea Raf. ex Jacks\*. 1.c. (Melastoma coccineum L. Rich.). West Indies=Charianthus coccineus (L. C. Rich.) D. Don.

fascicularis Raf. ex Jacks\*. 1.c. (Melastoma fasciculare Sw.). West Indies=Henriettella fascicularis (Sw.) Triana.

glabrata Raf. ex Jacks\*. l.c. (Melastoma glabratum Sw.). Jamaica = Calycogonium glabratum (Sw.) DC.

hispida Raf. ex Jacks\*. 1.c. (Melastoma hispidum Sw.). Jamaica=Tetrazygia hispida (Sw.) Macfad.

lateriflora Raf. ex Jacks\*. l.c. (Melastoma lateriflorum Vahl). West Indies=Henriettella lateriflora (Vahl) Triana.

microphylla Raf. ex Jacks\*. 1.c. (Melastoma microphyllum Sw.). Jamaica=Ossaea microphylla (Sw.) Triana.

repens Raf. ex Jacks\*. 1.c. (Melastoma repens Desr.). Southern China=Melastoma dodecandrum Lour.

umbrosa Raf. ex Jacks\*. (Melastoma umbrosum Sw.). Jamaica=Clidemia umbrosa (Sw.) Cogn.

vaccinioides Raf. ex Jacks\*. 1.c. (Melastoma vaccinioides Humb. & Bonpl.). Peru=Miconia vaccinioides (Humb. & Bonpl.) Naud.

verticillata Raf. ex Jacks\*. 1.c. (Melastoma verticillatum Vahl). West Indies=Clidemia verticillata (Vahl) DC.

virgata Raf. ex Jacks\*. 1.c. (Melastoma virgatum Sw.). Jamaica=Mecranium virgatum (Sw.) Triana.

OCTONUM Raf. Sylva Tellur. 95. 1838, descr.=Heterotrichum

\*humboldi Raf. 1.c., nom. (Melastoma octonum Humb. & Bonpl.). South America=Heterotrichum octonum (Humb. & Bonpl.) DC.

humboldti Raf. ex Jacks\*. Ind. Kew. 2:328. 1894=praec. OXISMA Raf. Sylva Tellur. 94. 1838, descr.=Loreya DC.

(1828).arborescens Raf. 1.c., nom., nota (Melastoma arborescens Aubl.). Guiana=Loreya arborescens (Aubl.) DC.

flavescens Raf. I.c., nom., nota (Melastoma flavescens Aubl.). Guiana=Henriettella flavescens (Aubl.) Triana.

PHOLOMPHIS Raf. Sylva Tellur. 97. 1838, nom. alt. Folomfis Raf. = Miconia Ruiz & Pavon (1794), nom. conserv.

RHEXIA Linn. Iudoviciana Raf. Fl. Ludovic. 92. 1817, descr. (Anonyme, Rob. Voy. Louis. 3:483. 1807). Louisiana=? R. mariana Linn.

obtusa Raf. Med. Repos. II. 5:354. 1808, nom. Central Atlantic United States. \*polypetala Raf. Sylva Tellur. 101. 1838, nom. sub Alifana Raf. Prob.=Rhexia polystachya Humbl. & Bonpl. South America.

rosea Raf. Med. Repos. 1.c., nom. Central Atlantic United States.

\*SAVASTANA Raf. Sylva Tellur. 100. 1838. descr. = Savastania Scop. (1777) = Tibouchina Aubl. (1775).

\*aspera Raf. I.c., nom. (Tibouchina aspera Aubl.; Melastoma aromaticum Vahl; Rhexia aspera Willd.). South America=Tibouchina aspera Aubl.

SERICOLA Raf. Sylva Tellur. 93. 1838, descr.=Miconia Ruiz

& Pavon. (1794), nom. conserv.
brachiata Raf. op. cit. 94, nom. (Melastoma holosericeum Linn.). Brazil=Miconia holosericea (Linn.) Triana.

SYNODON Raf. Sylva Tellur. 95. 1838, descr.=Conostegia D. Don (1823).

calyptrata Raf. l.c., nom. (Melastoma calyptratum Desr.).
West Indies=Conostegia calyptrata (Desr.) D. Don. montana Raf. 1.c., nom. (Melastoma montanum Sw.). West Indies=Conostegia montana (Sw.) D. Don.

SYNOPTERA Raf. Sylva Tellur. 98. 1838, descr.=Miconia Ruiz & Pavon (1794), nom. conserv.

levigata Raf. 1.c., nom. (Melastoma laevigatum Linn.). Indies, Mexico, South America = Miconia laevigata (Linn.)

\*TIBUCHINA Raf. Sylva Tellur. 99. 1838, nom.=Tibouchina Aubl. (1775).

XERACINA Raf. Sylva Tellur. 98. 1838, descr. = Adelobotrys DC. (1828).

aquatica Raf. 1.c., nom. (Melastoma aquaticum Aubl.). Guiana = Nepsera aquatica (Aubl.) Naud. scandens Raf. l.c., nom. (Melastoma scandens Aubl.).

Guiana=Adelobotrys scandens (Aubl.) DC

villosa Raf. l.c., nom. (Melastoma villosum Aubl.). Guiana = Desmocelia villosa (Aubl.) Naud.

ZIEGERA Raf. Sylva Tellur. 94. 1838, descr. = Miconia Ruiz

& Pavon (1794), nom. conserv.

levigata Raf. l.c., nom. (Melastoma laevigatum Linn.) West Indies=Miconia laevigata (Linn.) DC.

ZULATIA Neck.; Raf. Sylva Tellur. 97. 1838, descr.=Miconia Ruiz & Pavon (1794), nom. conserv.
alata Raf. l.c., nom. (Melastoma alatum Aubl.). Guiana=

Miconia alata (Aubl.) DC.

grandiflora Raf. 1.c., nom. (Melastoma grandiflorum Aubl.). Guiana = Rhynchanthera grandiflora (Aubl.) DC.

levigata Raf. 1.c., nom. (Melastoma laevigatum Aubl.). Guiana = Miconia prasina (Sw.) DC.

## ONAGRACEAE

ADENOLA Raf. Aut. Bot. 36. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:93. 1921, nom.=Jussiaea Linn.
\*glauca Raf. op. cit. 37, descr. (Jussieua leptocarpa Nutt.).
Alabama to Louisiana=Jussiaea leptocarpa Nutt.

grandissora Raf. l.c., descr. (Jussieua grandissora Michx.);
Pennell, l.c., nom. Florida = Jussiaea grandissora Michx.
\*longipes Raf. op. cit. 37. 1840, descr. (Ludwigia pedunculosa auct.). Florida, Louisiana. Ex descr. = Jussiaea repens

Linn. var. glabrescens O. Kuntze fide Munz in lit.

\*CHAMERION Raf. Am. Monthly Mag. Crit. Rev. 2:266. 1818, nom., gen. vel subgen. (Epilobium angustifolium sensu Pursh) = Chamaenerion Adans. (1763) = Epilobium Linn. \*macrocarpon Raf. Herb. Raf. 51. 1833, nom. alt. Epilobium

macrocarpon Raf. Rocky Mountains or Oregon. \*CIRCEA Raf. Am. Monthly Mag. Crit. Rev. 2:344. 1818, nom.=Circaea Linn.

\*canadensis Raf. l.c., nom. (Circaea lutetiana sensu Bigelow). New England = Circaea canadensis Muhl. = Circaea lutetiana Linn.

\*lutetiana Raf. l.c. nom. Europe, North America=Circaea lutetiana Linn.

\*tenella Raf. Herb. Raf. 68. 1833, nom. Alleghany Mountains. DIPLANDRA Raf. Aut. Bot. 35. 1840, descr.; Pennell, Bull.

Torr. Bot. Club 48:92. 1921, nom., non Bert. (1830), nec Hook. & Arn. (1837) = Jussiaea Linn.

\*compressa Raf. op. cit. 36, descr. Florida = seq. decurrens Raf. op. cit. 35, descr. (Ludwigia decurrens Walt.;

L. jussiaeoides Michx.; Jussieua erecta sensu Abbott & Smith Not Hist Levidort Liverts Georgia 1. t. 40 1707). Smith, Nat. Hist. Lepidopt. Insects Georgia 1: t. 40. 1797); Pennell, l.c., nom. Carolina to Missouri=Jussiaea decurrens (Walt.) DC.

\*heterophyla Raf. l.c., descr. Louisiana=praec.

\*montana Raf. op. cit. 36, descr. Unaka Mountains, North Carolina = praec.

\*ovata Raf. 1.c., descr. (Jussieva grandiflora sensu Raf. Fl. Ludovic. 96. 1817, non Michx. fide Raf.). Louisiana=Jussiaea decurrens (Walt.) DC.

\*pumila Raf. 1.c., descr. Florida=praec.

\*EATONIA Riddell ex Raf. Aut. Bot. 37. 1840, nom. in syn. sub Adenola Raf.=Jussiaea Linn.
\*amphibia Riddell ex Raf. 1.c., nom. in syn.=Adenola longi-

pes Raf.=Jussiaea repens Linn. var. glabrescens O. Kuntze. Florida, Louisiana.

EPILOBIUM Linn. amoenum Raf. Med. Repos. II. 5:354. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. (amaenum); Am. Monthly Mag. Crit. Rev. 2:266. 1818 (amenum), nom., nota (E. angustifolium sensu Pursh). Eastern United States = E. angustifolium Linn.

cerulescens Raf. Med. Repos. II. 5:354. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. (coerulescens). Eastern

United States.

ciliatum Raf. Med. Repos. II. 5:361. 1808, descr.; Jour. Bot. (Paris) 1:229. 1809, descr. Pennsylvania (E. americanum Haussk., 1879); see Fernald, Rhodora 46:383. 1944.

densum Raf. Précis Découv. Somiol. 42. 1814, descr.; Jour. Bot. (Desv.) 4:271. 1814, descr. Maryland=E. strictum Muhl. (1813); see Fernald, Rhodora 46:381-382. 1944. divaricatum Raf. Med. Repos. II. 5:354. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom.; Précis Découv. Somiol.

42. 1814, descr.; Jour. Bot. (Desv.) 4:271. 1814, descr.; Am. Monthly Mag. Crit. Rev. 1:359. 1817, nom. Pennsylvania, Maryland=? E. coloration Muhl. leptophyllum Raf. Med. Repos. II. 5:353. 1808, nom.; Jour. Bot. (Paris) 2:173. 1800, nom.; Pricis Discour.

Bot. (Paris) 2:173. 1809, nom.; Précis Découv. Somiol. 41. 1814, descr.; Jour. Bot. (Desv.) 4:271. 1814, descr. Pennsylvania, Maryland (E. rosmarinifolium Pursh, non Haenke); see Fernald, Rhodora 46:378, 383. 1944. \*macrocarpon Raf. Herb. Raf. 51. 1833, nom. alt. Chamerion

macrocarpon Raf. Rocky Mountains or Oregon. obtusiusculum Raf. Med. Repos. II. 5:354. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. Eastern United States. tenellum Raf. Précis Découv. Somiol. 41. 1814, descr.; Jour.

Bot. (Paris) 4:271. 1814, descr.; Act. Soc. Linn. Bordeaux 6:266. 1834, nom., nota (E. alpinum auct. Am.). Pennsylvania=E. leptophyllum Raf. (1808); see Fernald, Rhodora 46:378. 1944.

GAURA Linn.

\*missurica Raf. Herb. Raf. 40. 1833, nom. (G. coccinea Nutt.). Upper Missouri (Mandan country) = Dakota = Gaura coccinea Nutt.

multicaulis Raf. Atl. Jour. 1:146. 1832, nom. (G. coccinea sensu Torr. Ann. Lyc. Nat. Hist. N. Y. 2:200. 1827). Loup Fork of the Platte River=Gaura coccinea Nutt.

ISNARDIA Linn.=Ludwigia Linn.

\*angustifolia Raf. Aut. Bot. 38. 1840, nom., nota (Ludwigia angustifolia Michx.; L. linearis Walt.). Southeastern United States.

\*glandulosa Raf. 1.c., nom., nota (Ludwigia glandulosa Walt.).

Carolina, Florida.

JUSSIEVA Gleditsch=Jussiaea Linn.

\*erecta Raf. Aut. Bot. 35. 1840, nom. sub Diplandra decurrens Raf. = Jussiaea decurrens (Walt.) DC.

\*trachisperma Raf. op. cit. 36, nom. sub Diplandra compressa Raf. Florida=praec.

LOPEZIA Cav.

\*bracteata Raf. Aut. Bot. 13. 1840, descr. New Mexico.

LUDWIGIA Linn.

aurantiaca Raf. Med. Repos. II. 5:358. 1808, descr.; Jour. Bot. (Paris) 1:224. 1809, descr. Delaware, Pennsylvania= L. alternifolia Linn.

hirtella Raf. Med. Repos. 1.c., descr.; Jour. Bot. (Paris) 1:223. 1809, descr.; Aut. Bot. 38. 1840, descr. (L. hirsuta Pursh); Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom. Maryland, New Jersey; see Fernald, Rhodora 39:436. 1937.

juncea Raf. Aut. Bot. 38. 1840, descr. Alabama=? L. alternifolia Linn.

\*justicoides Raf. op. cit. 35, nom. sub Diplandra decurrens Raf., sphalm.=Ludwigia jussiaeoides Michx.=Jussiaea decurrens (Walt.) DC.
pruinosa Raf. op. cit. 38, descr. Alleghany Mountains and

Kentucky.

tuberosa Raf. Ann. Nat. Ann. Synop. 15. 1820, descr.; First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom.; Herb. Raf. 60. 1833, nom. Ohio River (West Virginia and Kentucky)=? L. virgata Michx. uniflora Raf. Med. Repos. II. 5:358, 1808, descr.; Jour. Bot. (Paris) 1:224-1200

(Paris) 1:224. 1809, descr. New Jersey =? L. alternifolia

MERIOLIX Raf. Am. Monthly Mag. Crit. Rev. 4:192. 1819, nom., nota; Jour. Phys. Chim. Hist. Nat. 89:259. 1819, nom., nota=Calylophis Spach (1835)=Oenothera Linn. serrulata Raf. ex Jacks\*. Ind. Kew. 2:212. 1894 (Oenothera serrulata Nutt.); est M. \*serrulata Walp. Repert. 2:79.

1843. North America.

OENOTHERA Linn.

alata Raf. Fl. Ludovic. 95. 1817, descr. (Oenothera 1, Rob. Voy. Louis. 3:489. 1807). Louisiana=Jussiaea decurrens (Walt.) DC

\*aurea Raf. Herb. Raf. 62. 1833, nom. Kentucky or Illinois.

\*brevicaulis Raf. l.c., nom. Kentucky or Illinois. \*costata Raf. op. cit. 51, nom. Rocky Mountains or Oregon. cuneifolia Raf. Atl. Jour. 1:147. 1832, descr. Florida=? O. humifusa Nutt.

\*fascicularis Raf. Herb. Raf. 62. 1833, nom. Kentucky or Illinois.

\*fasciculata Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom. Kentucky.

\*heterophyla Raf. Herb. Raf. 62. 1833, nom. Kentucky or

\*levigata Raf. op. cit. 48, descr. Rocky Mountains or Oregon. Ex descr.=? Clarkia rhomboidea Dougl. fide Munz in lit.

\*maculata Raf. op. cit. 47, descr. Rocky Mountains or Oregon. \*odanisa Raf. op. cit. 62, nom. Kentucky or Illinois.

\*rhomboidalis Raf. Herb. Raf. 62. 1833, nom. Kentucky or

\*rubra Raf. op. cit. 51, nom. Rocky Mountains or Oregon.
\*rubricaulis Raf. op. cit. 62, nom. Kentucky or Illinois.
\*tenessica Raf. l.c., nom. Tennessee.
\*undulata Raf. Med. Repos. II. 5:353. 1808, nom.; Jour. Bot.

(Paris) 2:173. 1809, nom. Central Eastern United States. uniflora Raf. Il.cc., nom.; Am. Monthly Mag. Crit. Rev. 1:359. 1817, nom. New Jersey.

\*viscosa Raf. Fl. Ludovic. 96. 1817, descr. (Onagre visqueuse

Rob. Voy. Louis. 3:96. 1807). Louisiana =? Oenothera

drummondii Hook.

ONOSURIS Raf. Fl. Ludovic. 95. 1817, descr.; Am. Monthly Mag. Crit. Rev. 4:188, 192. 1819, nom.=Oenothera Linn. acuminata Raf. op. cit. 96, descr. (Oenothera 3, Rob. Voy. Louis. 3:490. 1807). Louisiana=? Oenothera biennis Linn. \*alba Raf. Herb. Raf. 40. 1833, nom. Upper Missouri (Managaratara).

dan country) = Dakota.
\*sinuata Raf. op. cit. 47, descr., 51, nom. 1833. Rocky Mountains or Oregon. Prob. = Oenothera albicaulis Pursh (O. pinnatifida Nutt.), fide Munz in lit.

PLEURANDRA Raf. Fl. Ludovic. 95, 1817, descr.; Am. Monthly Mag. Crit. Rev. 4:192. 1819, nom., non Labill. (1806) = seq. alba Raf. l.c., descr. (Denothera 2, Rob. Voy. Louis. 3:490. 1807); Herb. Raf. 55. 1833, nom. Louisiana = Gaura angustifolia Michx.

PLEUROSTEMON Raf. Jour. Phys. Chim. Hist. Nat. 89:258. 1819, nom. nov. Pleurandra Raf. (1817), non Pleurandra Labill. (1806); DC. Prodr. 3:64. 1828, descr.=Gaura

Linn. †album Raf. ex DC. Prodr. 3:64. 1828 [Pleurandra alba Raf.]. Louisiana=Gaura angustifolia Michx. (incl. G. filiformis Small).

#TERESPERMA Raf. Aut. Bot. 37. 1840, nom. nov. provis., subgen. Adenola Raf.=Jussiaea Linn.

\*TUCHSIA Raf. Am. Monthly Mag. Crit. Rev. 4:187. 1819, nom., sphalm.=Fuchsia Linn.

# HALORRHAGIDACEAE

BURSHIA Raf. Med. Repos. II. 3:422. 1806; nom.; op cit. II. 5:357. 1808, descr.; Jour. Bot. (Paris) 1:219. 1809, descr.=Myriophyllum Linn.

humilis Raf. 1l.cc., nom., descr.; Gerard, Bull. Torr. Bot. Club. 12:37. 1885, nom. New Jersey, Delaware=Myriophyllum humile (Raf.) Morong.

PROSERPINACA Linn.

\*heterophylla Raf. Aut. Bot. 176. 1840, descr. New York,

New Jersey=P. palustris Linn.
\*serrata Raf. 1.c., descr., nom. nov. Proserpinaca palustris
Linn. New England to Kentucky.

\*tuberculata Raf. l.c., descr. Alabama=P. pectinata Lam. \*PTILOPHYLLUM "Raf. Nov. Gen. 1811" ex S. Wats. Bibl. Ind. N. Am. Pl. 1:356. 1878, nom. in syn.=Myriophyllum Linn. subgen. Ptilophyllum Nutt. Gen. N. Am. Pl. 2:211. 1818=Myriophyllum Linn.

\*humile Raf. ex S. Wats. 1.c., nom. in syn.=Myriophyllum humile (Raf.) Morong. New Jersey.

†PURSHIA Raf. Anal. Nat. Tabl. Univ. 195. 1815, nom.; Am. Monthly Mag. Crit. Rev. 4:191, 195. 1819, nom. (Ptilophyllum Nutt. 1818, subgen. Myriophyllum Linn.): Jour. Phys. Chim. Hist. Nat. 89:257. 1819, nom. (Ptilophyllum Nutt., 1918, subgen. Myriophyllum Linn.): Act. Soc. Linn. Born. 1818, subgen. Myriophyllum Linn.); Act. Soc. Linn. Bordeaux 6:266. 1834, nom., nota (Ptilophyllum Nutt., subgen. Myriophyllum Linn.)=Purshia Raf. (1806, nom., 1808, descr.) = Myriophyllum Linn.

# HIPPURIDACEAE

CAULLINIA Raf. Med. Repos. II. 5:352. 1808, nom.; Jour. Bot.

(Paris) 2:171. 1809, nom.=Hippuris Linn.
hippurioides Raf. Il.cc., nom. ("Hippuris europeus, b. Mich.");
A. Gray, Am. Jour. Sci. 40:228. 1841, nom. Europe or North America=Hippuris vulgaris Linn. HIPPURIS Linn.

\*europaea ("europeus") Raf. Med. Repos. II. 5:352. 1808,

nom. in syn.; sub Caullinia hippurioides Raf.; Jour. Bot. (Paris) 2:171. 1809, nom.=H. vulgaris Linn. polyphylla Raf. Fl. Ludovic. 13. 1817, descr. (Pesse commune Rob. Voy. Louis 3:330. 1807); Am. Monthly Mag. Crit. Rev. 4:190. 1819, nom. (an H. vulgaris sensu Nutt.?). Louisiana. Prob.=Proserpinaca sp.

### ARALIACEAE

ARALIA Linn.

\*flexuosa Raf. Herb. Raf. 68. 1833, nom. Alleghany Moun-

\*parviflora Raf. l.c., nom. Alleghany Mountains.

PANAX Linn.

americanum Raf. New Fl. N. Am. 4:58. 1836 [1838], descr. (Panax quinquefolium Linn. var. americanum Raf. Med. Fl. 2:52. fig. 71. 1830); Aut. Bot. 22. 1840, nom. Canada to Missouri=Panax quinquefolium Linn.

var. elatum Raf. New Fl. l.c., descr.

obovatum Raf. l.c., descr.
\*cuneatum Raf. Act. Soc. Linn. Bordeaux 6:286. 1834, nom., iter. Merr. Proc. Am. Philos. Soc. 86:88, 90. 1942. [P. americanum Linn, var. cuneatum Raf.]. North America= P. quinquefolium Linn.

P. quinquerolium Lini.

†lanceolatum Raf. Herb. Raf. 68. 1833, nom.; Act. Soc. Linn. Bordeaux 6:268. 1834, nom., iter. Merr. Proc. Am. Philos. Soc. 86:88, 90. 1942; New Fl. N. Am. 4:57. 1836 [1838], descr.; Aut. Bot. 22. 1840, nom. Eastern North

America=Panax trifolium Linn.

\*obovatum Raf. Herb. Raf. 68. 1833, nom.; Act. Soc. Linn. Bordeaux 6:268, 1834, nom., iter. Merr. Proc. Am. Philos. Soc. 86:88, 90, 1942=Panax quinquefolium Linn. [P. quinquefolium Linn. var. obovatum Raf.]. Alleghany Mountains.

quinquefolium Linn.

var. americanum Raf. Med. Fl. 2:52. f. 71. 1830, descr.; Casket 1831:235. fig. 1831, descr.: Sat. Eve. Post 10(527):[1]. fig. 1831. North America=Panax

americanum Raf. = P. quinquefolium Linn. asiaticum Raf. Med. Fl. 1.c., descr. Central and Eastern Asia, Manchurica, Korea = Panax shin-

seng Nees.

cuneatum Raf. 1.c., nom. alt. P. quinquefolium Linn. var. americanum Raf. = Panax quinquefolium Linn. obovatum Raf. 1.c., descr. (P. quinquefolium sensu Barton, Med. Bot. 2: f. 45. 1818). Eastern North America=Panax quinquefolium Linn.

ovatum Raf. 1.c., nom. alt. Panax quinquefolium Linn. var. asiaticum Raf. Asia=Panax shin-seng

Nees.

# UMBELLIFERAE

\*ABIOTON Raf. Good Book 56. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 56=Capnophyllum Gaertn. (1791)

\*africanum Raf. 1.c., nom. (Conium africanum Linn.). South Africa=Capnophyllum africanum (Linn.) Koch.

\*ACHEMORA Raf. Herb. Raf. 78. 1833, nom., sphalm.=Archemora DC.=Oxypolis Raf. (1825).

\*serrata Raf. 1.c., descr. Kentucky, Tennessee=Oxypolis

rigida (Linn.) Raf.

\*trifoliata Raf. 1.c., descr. Missouri.

\*ACULARIA Raf. Good Book 53. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 53=Scandix Linn.

\*australis Raf. 1.c., nom. (Scandix australis Linn.). Medi-

terranean region.

\*nodosa Raf. 1.c., nom. (Scandix nodosa Linn.). Europe, Asia Minor, North Africa=Chaerophyllum nodosum (Linn.) Crantz.

\*trichosperma Raf. 1.c., nom. (Scandix trichosperma Linn.). Syria=Caucalis trichosperma (Linn.) Delile.

\*ADORION Raf. New Fl. N. Am. 4:34. 1836 [1838], nom.=

seq.

ADORIUM Raf. Neogen. 3. 1825, nom. nov. Marathrum Raf. (1819), non Humb. & Bonpl. (1808); Act. Soc. Linn. Bordeaux 6:268. 1834, nom. (Marathrum Raf.); New Fl. N. Am. 1:66. 1836, descr. (Marathrum Raf. 1819) = Musineon Raf. (1820) (Musenium Nutt., 1840).

†crassifolium Raf. Seringe Bull. Bot. 1:217. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 81. 1833; New Fl. N. Am. I.c., descr. (Seseli divaricatum Pursh); Good Book 55. 1840, nom., 1913 repr. Scad. Gen. Omb. Pl. 55. Missouri River=Musineon divaricatum (Pursh) Nutt.

\*AEGOKERAS Raf. Good Book. 51. 1840, descr., 1913 repr.

Scad. Gen. Omb. Pl. 51=Seseli Linn.

\*cespitosa Raf. l.c., nom. (Seseli caespitosum Sibth. & Sm. Fl. Graec. Prodr. 1:200. 1806). Greece.

\*AENANTHE Raf. Jour. Bot. (Desv.) 4:271. 1814, nom., sphalm.=Oenanthe Linn.

\*humilis Raf. 1.c., descr., sphalm.=Oenanthe humilis Raf. Sicily

\*AGASULIS Raf. Good Book 57. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 57=Ferula Linn.

\*tingitana Raf. op. cit. 58, nom. (Ferula tingitana Linn.). North Africa.

\*AGATHORHIZA Raf. Good Book 60. 1840, nom., 1913 repr. Scad. Gen. Omb. Pl. 60, nom. nov. Archangelica Hoffm.

\*AGEOMORON Raf. Good Book 56. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 56=Astrodaucus Drude (1898). \*royeni Raf. 1.c., nom. (Conium royeni Linn.). Southeastern

Europe=Astrodaucus orientalis (Linn.) Drude.

\*ALSATON Raf. Good Book 61. 1840, 1913 repr. Scad. Gen. Omb. Pl. 61, nom. nov. provis. Bradlaeia Neck. (1790) = Siler Crantz (1767).

AMMI Linn.

\*\*junceum Raf. Neogen. 2. 1825, nom. sub Ptilimnium Raf.
Eastern North America=Ptilimnium capillaceum (Michx.) Raf. = Discopleura capillacea (Michx.) DC.

\*ANGINON Raf. Good Book 56. 1840, descr., 1913 Gen. Omb. Pl. 56=Rhyticarpus Sonder (1862). 1913 repr. Scad.

\*rugosum Raf. 1c., nom. (Conium rugosum Thunb.; C. suf-fruticosum Berg.). South Africa=Rhyticarpus rugosus (Thunb.) Sond. et, quoad syn. Berg., Cnidium suffruticosum (Berg.) Cham. & Schlecht.

ANIDRUM Neck. (1790); Raf. Good Book. 59. 1840, descr. (Bifora Hoffm.), 1913 repr. Scad. Gen. Omb. Pl. 59=Bifora Hoffm. (1816).

\*didymum Raf. 1.c., nom. (Coriandrum testiculatum Linn.). Mediterranean region=Bifora testiculata (Linn.) Roth.

ANISUM Linn.; Raf. Good Book 52. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 52=Pimpinella Linn. \*italicum Raf. 1.c., nom. (Pimpinella peregrina Linn.). South-

ern Europe, Asia Minor.

\*odoratum Raf. 1.c., nom. (Pimpinella anisum Linn.). Eastern Mediterranean region=Pimpinella anisum Linn.

\*ANTRISCUS Raf. Good Book 52. 1840, descr., 1913, repr. Scad. Gen. Omb. Pl. 52=Anthriscus Hoffm. (1814), nom. conserv. (Chaerefolium Haller, 1768).

\*fetidus Raf. 1.c., nom. (Scandix anthriscus Linn.). Europe.

APINELLA Neck.; Raf. Good Book 52. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 52=Trinia Hoffm. (1814), nom. conserv. (Apinella Neck., 1790).

\*pumila Raf. 1.c., nom. (Pimpinella dioica Linn.; Seseli pumilum Linn.). Europe=Trinia glauca (Linn.) Dumort.

\*APOLGUSA Raf. Good Book 57. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 57=Lecokia DC. (1829).

\*cretica Raf. 1.c., nom. (Cachrys cretica Lam.). Greece= Lecokia cretica (Lam.) DC. \*taurica Raf. 1.c., nom. (Cachrys taurica Willd.). Tauria=

Rumia taurica (Willd.) Hoffm.=Sanicula crithmifolia Willd.

\*APSEUDES Raf. Good Book 57. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 57=Peucedanum Linn.

\*caspica Raf. l.c., nom. (Peucedanum redivivum Pallas).

\*ARCHEMERA Raf. New Fl. N. Am. 4:34. 1836 [1838], nom., sphalm.=Archemora DC. (1830).

ATHAMANTA Linn.

\*cherophylloides Nutt. ex Raf. New Fl. N. Am. 4:29. 1836 [1838], nom. in syn. sub Entasikon tenuifolium Raf. Arkansas.=Trepocarpus aethusae Nutt.

\*ATHAMANTHA Raf. Good Book 56, 57. 1840, nom., 1913 repr. Scad. Gen. Omb. Pl. 56, 57=Athamanta Linn.

\*golakka Raf. Il.cc., nom. [Athamanta Linn.

\*golakka Raf. Il.cc., nom. [Athamanta golaka Hacq. [A. galatta Gmel.]). Europe=Grafia golaka (Hacq.) Reichb.

ATIRSITA Raf.<sup>25</sup> New Fl. N. Am. 4:36. 1836 [1838], descr.;

Good Book 46. 1840, nom.=? Eryngium Linn.

pumila Raf. op. cit. 37, descr. (Eryngium gracile "Nutt.";

E. plantagineum Collins); Aut. Bot. 10, 184. 1840, nom.

Arkapsas=? Eryngium gracitatum Nutt. Arkansas=? Eryngium prostratum Nutt.

var. serrata Raf. New Fl. N. Am. 1.c., descr.

BABIRON Raf. New Fl. N. Am. 4:23. 1836 [1838], descr.;

Good Book 46, 55. 1840, nom., 1913, repr. Scad. Gen. Omb.
Pl. 46, 55 (incl. Spermolepis Raf., fide Raf.) = Spermolepis

Raf. (1825)

dichotomum Raf. op. cit. 24, descr. (Ammi divaricatum herb. Collins; an Michx.?); Aut. Bot. 106. 1840, nom.; Good Book 55. 1840, nom., 1913, repr. Scad. Gen. Omb. Pl. 55. Florida=Spermolepis divaricata (Walt.) Raf.

divaricatum Raf. 1.c., descr. (Daucus divaricatus Walt.; tocaulis divaricatus DC.; Ammi divaricatum Michx.; Ligusticum pusillum Pers.; Sison pusillum Michx.); Aut. Bot. 1.c., nom.; Good Book 1.c., nom. Carolina, Florida= Apium divaricatum Michx. = Spermolepis divaricata (Walt.)

pusillum Raf. op. cit. 23, descr. (Daucus pusillus sensu Torr.); Aut. Bot. 1.c., nom.; Good Book 1.c., nom. Georgia, Ala-

bama=? praec. \*BAKEROS Raf. Good Book 51. 1840, descr., 1913, repr. Scad. Gen. Omb. Pl. 51=Seseli Linn.

\*elatum Raf. 1.c., nom. (Seseli elatum Linn.). Southern

BALLIMÓN Raf. New Fl. N. Am. 4:28. 1836 [1838], descr.=

Daucus Linn.

maritimum Raf. l.c., nom. (Daucus maritimus Lam.); Good Book 55. 1840, nom., 1913, repr. Scad. Gen. Omb. Pl. 55. Europe=Daucus carota Linn., subsp. maritimus (Lam.) Spreng.

muricatulum Raf. ex Jacks\*. Ind. Kew. 1:266. 1893, sphalm.=

\*muricatum Raf. Il.cc., nom. (Daucus muricatus Linn.). Mediterranean region (Platyspermum muricatum Hoffm.).

\*BIROSTULA Raf. Good Book 59. 1830, descr., 1913, repr. Scad. Gen. Omb. Pl. 59=Scandix Linn.

\*pinnatifida Raf. 1.c., nom. (Scandix pinnatifida Vent.). Mediterranean region, Asia Minor.

\*BLEPHIXIS Raf. Good Book. 59. 1840, descr., 1913, repr. Scad. Gen. Omb. Pl. 59=Chaerophyllum Linn.

\*uniflora Raf. 1.c., nom. (Chaerophyllum minimum Vand.). Italv

\*BRADLEIA Raf. Good Book 61. 1840, nom., 1913 repr. Scad. Gen. Omb. Pl. 61=Bradlaeia Neck. (1790)=Siler Crantz

\*BUPLERUM Raf. Med. Repos. II. 5:353. 1808, nom.=Bupleurum Linn.

\*rupestre Raf. 1.c., nom. Central Atlantic United States.

BUPLEURUM Linn.

rupestre Raf. ex Jacks\*. Ind. Kew. 1:360. 1893 (Buplerum rupestre Raf.) [Central Atlantic United States].

\*BUPLEVRUM Raf. Jour. Bot. (Paris) 2:173. 1809, nom.; Anal. Nat. Tabl. Univ. 183. 1815, nom.; Good Book 54. 1840, descr., 1913, repr. Scad. Gen. Omb. Pl. 54=Bupleurum Linn.

\*fruticosum Raf. First Cat. Bot. Gard. Transylv. Univ. 20. 1815, nom.=Bupleurum fruticosum Linn. Mediterranean

region.

\*gerardi Raf. Good Book 1.c., nom. [Bupleurum gerardi Jacq.], 1913 repr. Scad. Gen. Omb. Pl. 54. Europe, Asia Minor. \*petreum Raf. 1.c., nom. [Bupleurum petraeum Linn.]. Europe.

\*pyreneum Raf. 1.c., nom. [Bupleurum pyrenaeum Gouan].

\*rigidum Raf. 1.c., nom. [Bupleurum rigidum Linn.]. France. \*rupestre Raf. Jour. Bot. (Paris) 2:173. 1809, nom. [Central Atlantic United States].

\*stellatum Raf. Good Book 1.c., nom. [Bupleurum stellatum Linn.]. Europe.

<sup>25</sup> See Pennell's critical note on this genus, Acad. Nat. Sci. Phila. Monog. 1:636. 1935. The Nuttall specimen of Eryngium gracile is E. prostratum Nutt., but Rafinesque's description may have been based on some small plant mixed with the Eryngium. In any case it is not a scrophulariaceous plant.

\*CHABREA Raf. Good Book 51. 1840, descr. 1913 repr. Scad. Gen. Omb. Pl. 51=Peucedanum Linn.

\*carvifolia Raf. 1.c., nom. (Selinum carvifolium Crantz ex Jacq. Fl. Austr. 1:47. t. 72. 1773. Austria=Peucedanum carvifolium Vill.

\*CHEROPHYLUM Raf. Herb. Raf. 78. 1833, nom.: New Fl. N. Am. 4:33. 1836 [1838], nom., sub Pachiloma verticillata Raf.; Good Book 53. 1840, nom., 1913 repr. Scad. Gen. Omb. Pl. 53=Chaerophyllum Linn.

\*flavicaule Raf. Herb. Raf. 78. 1833, descr. Ohio, Kentucky = Chaerophyllum procumbens (Linn.) Crantz.

\*pallidum Raf. 1.c., descr. Missouri=praec. \*triflorum Raf. op. cit. 79, descr. Illinois=praec.

\*vernum Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom. Kentucky.

\*COGSVELLIA Raf. Good Book 55. 1840, nom. sub Lomatium Raf., 1913 repr. Scad. Gen. Omb. Pl. 55=Cogswellia Roem. & Schult. (1820).

\*villosa Raf. 11.cc., nom.=Lomatium foeniculaceum (Nutt.)

Coult. & Rose.

\*CONILARIA Raf. Good Book 53. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 53=Lecokia DC. (1829).

\*cretica Raf. l.c., nom. (Cachrys cretica Lam.; Scandix latifolium Sibth. & Sm. Fl. Graec. 3: 77. t. 284. 1819). Greece, Asia Minor=Lecokia cretica (Lam.) DC.

\*CROSAPILA Raf. Good Book 53. 1840, descr., 1913 repr. Scad.

Gen. Omb. Pl. 53=Chaerophyllum Linn.

\*aurea Raf. 1.c., nom. (Chaerophyllum aureum Linn.). Europe. \*colorata Raf. 1.c., nom. (Chaerophyllum coloratum Linn.). Europe.

\*CRYPTOTENIA Raf. Act. Soc. Linn. Bordeaux 6:268. nom., nota, iter. Merr. Proc. Am. Philos. Soc. 86:86. 1943; Good Book 58. 1840, nom. sub Aulacosperma Neck., 1913 repr. Scad. Gen. Omb. Pl. 58=Cryptotaenia DC. (1829), nom. conserv. (Deringa Adans., 1763; Alacospermum Neck.,

CYMOPTERUS Raf. Jour. Phys. Chim. Hist. Nat. 89:100. 1819, descr. (Selinum acaule Pursh; Thapsia glomerata Nutt.); Isis von Oken 1920, 1: Lit. Anz. 239. 1820, descr.; Seringe Bull. Bot. 1:216. 1830, descr. (Selinum acaule Pursh; Thapsia glomerata Nutt.), iter. Schlecht. Linnaea 8: Lit.-Ber. 81. 1833; Herb. Raf. 40. 1833, nom.; Good Book 56. 1840, nom., 1913 repr. Scad. Gen. Omb. Pl. 56.

\*acaulis (Pursh) Raf. Herb. Raf. 40. 1833, nom. (Selinum acaule Pursh); Good Book I.c., nom. (Selinum acaule Pursh), 1913 repr. Scad. Gen. Omb. Pl. 56. Central United

States.

\*CYMOSPERMUM Raf. New Fl. N. Am. 4:34. 1836 [1838],

nom., sphalm.?=seq.?

CYRTOSPERMUM Raf. ex DC. Mém. Ombel. 42. 1829, nom. in syn.; Prodr. 4:118. 1830, nom. in syn. sub Cryptotaenia DC.; Act. Soc. Linn. Bordeaux 6:268. 1834, nom. (Cryptotaenia DC.), iter. Merr. Proc. Am. Philos. Soc. 86:86. 1942; New Fl. N. Am. 4:34. 1836 [1838], nom.; Good Book 58. 1840, nom. sub Aulacosperma Neck., 1913 repr. Scad. Gen. Omb. Pl. 58=Cryptotaenia DC. (1829), nom. conserv. (Deringa Adans., 1763; Aulocospermum Neck., 1790).

trifoliatum Raf. ex DC. Prodr. 4:119, 1830, nom. in syn. sub Cryptotaenia canadensis DC. North America=Cryptotaenia

canadensis (Linn.) DC.

\*DARDANIS Raf. Good Book 57. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 57=Ferula Linn.

\*sibirica Raf. 1.c., nom. (Peucedanum sibiricum Willd.)= Ferula soongaria Pallas.

\*DARION Raf. Good Book 50. 1840, descr. (Arduina Adans.), 1913 repr. Scad. Gen. Omb. Pl. 50=Kundmannia Scop. (1777), nom. conserv. (Arduina Adans., 1763).

\*siculum Raf. 1.c., nom. (Sium siculum Linn.). ranean region=Kundmannia sicula (Linn.) DC.

\*DASISPERMUM Raf. Good Book 56. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 56=Dasyspermum Neck. (1790). \*maritimum Raf. l.c., nom. (Conium rigens Linn.).

Africa=Cnidium suffruticosum (Berg.) Cham. & Schlecht. DAUCUS Linn.

agrestis Raf. New Fl. N. Am. 4:27. 1836 [1838], descr.; Aut. Bot. 106. 1840, nom. Europe=Daucus carota Linn.

brevicaulis Raf. New Fl. N. Am. 4:25. 1836 [1838], descr.; Aut. Bot. 106. 1840, nom. Pennsylvania (near Philadelphia)=Daucus carota Linn.

DAUCUS (continued).

brevifolius Raf. op. cit. 26, descr.; Aut. Bot. 106. 1840, nom. Alleghany Mountains = Daucus pusilla Michx.

var. filiformis Raf. New Fl. N. Am. 1.c., descr. \*carotta Raf. Med. Repos. III. 2:313. 1811, nom.; New Fl. N. Am. 4:22, 27. 1836 [1838], nom.=D. carota Linn.

†fetidus Raf. Fl. Ludovic. 81. 1817, descr. [s.n. Rob. Voy. Louis. 3:460-461, 1807, nota]. Louisiana = ? Daucus pusillus Michx.

heterophylus Raf. New Fl. N. Am. 4:26. 1836 [1838], descr.; Aut. Bot. 106. 1840, nom. Canada to Louisiana=Daucus

carota Linn.

var. asper Raf. op. cit. 27, descr.; l.c., nom. fumaroides Raf. Il.cc., descr., nom. laxiflorus Raf. Il.cc., descr., nom.

levis Raf. op. cit. 25, descr., 1.c., nom. New Jersey to Kentucky. Ex descr. =? Daucus carota Linn.

nudicaulis Raf. 11.cc., descr., nom. Pennsylvania (near Philadelphia). Ex descr. = Daucus carota Linn. var. pumilus Raf. New Fl. N. Am. 1.c., descr.

\*scadiophylus Raf. op. cit. 24, descr.; 1.c., nom. Georgia, Alabama, Florida = Daucus carota Linn.

scariosus Raf. New Fl. N. Am. op. cit. 25, descr.; Aut., Bot. 1.c., nom. Pennsylvania=? Daucus carota Linn.

var. ramosus Raf. New Fl. 1.c., descr. simplex Raf. 1.c., descr.

sciadophylus Raf. ex Jacks\*. Ind. Kew. 1:721. 1893=D. scadiophylus Raf.

strigosus Raf. op. cit. 27, descr.; 1.c., nom. England, ex descr.=? D. carota Linn.

\*tenuifolius Raf. Herb. Raf. 69. 1833, nom. Long Island,

New Jersey, Chesapeake Bay. #DISCADIA Raf. Good Book 50. 1840, descr. subg. Siumis Raf. (Sium longifolium Pursh), 1913 repr. Scad. Gen. Omb. Pl. 50=Oxypolis Raf. (1825)

ENTASIKON Raf. New Fl. N. Am. 4:28. 1836 [1838], descr.; Good Book 55. 1840, *nom.*, 1913 repr. Scad. Gen. Omb. Pl. 55=Trepocarpus Nutt. (1829).

tenuifolium Raf. New Fl. op. cit. 29, descr. (Athamanta cherophyloides Nutt., in herb.; Trepocarpus aethusae Nutt.?); Good Book 55. 1840, nom., 1913 repr. Scad. Gen. Omb. Pl. 55. Arkansas=Trepocarpus aethusae Nutt. tuberosum Raf. Il.cc., descr., nom. (Phellandrium Nutt. in herb.). Arkansas=? praec.

\*ENTASIKOM Raf. New Fl. N. Am. 4:29. 1836 [1838],

sphalm. = praec.

\*EPIKEROS Raf. Good Book 51. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 51=Selinum Linn.

\*pyrenaicus Raf. l.c., nom. (Seseli pyrenaeum Linn.). Pyrenees Mountains=Selinum pyrenaeum (Linn.) Gouan.

ERIGENIA Nutt.

shortiana Raf. First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom. Kentucky.

ERYNGIUM Linn.

\*balduini Raf. New Fl. N. Am. 4:36. 1836 [1838], nom. sub Streblanthus humilis Raf. Florida = Eryngium baldwinii Spreng.

\*floridanum Torr. ex Raf. Atl. Jour. 1:149. 1832, nom. sub Streblanthus Raf.

\*gracile Nutt. ex Raf. New Fl. N. Am. 4:36. 1836 [1838], nom. in syn. sub Atirsita pumila Raf. Arkansas=? E. prostratum Nutt.

\*obliquatum Raf. Herb. Raf. 52. 1833, nom. Rocky Mountains or Oregon.

\*plantagineum Collins ex Raf. New Fl. N. Am. 4:37. 1836 [1838], nom. in syn. sub Atirsita pumila Raf. Arkansas=? Eryngium prostratum Nutt.

\*polycephalum Baldw. ex Raf. op. cit. 36, in syn. sub Streblanthus tenuifolius Raf. Florida=Eryngium baldwinii

Spreng.

tuberosum Raf. Fl. Ludovic. 60. 1817, descr. (Chardon tubéreux Rob. Voy. Louis. 3:429. 1807). Louisiana=Eryngium vuccifolium Michx.

\*yucefolium Raf. Med. Fl. 2:218. 1830, nom.=praec.

\*ETOXOË Raf. Good Book 53. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 53=Astrantia Linn.

\*aromatica Raf. 1.c., nom. (Astrantia carniolica Wulf.). Europe.

FERULA Linn.

\*feniculacea Raf. Good Book 55. 1840, nom.=F. foeniculacea Nutt.

GALBANON Adans.; Raf. Good Book 58. 1840, nom. 1913 repr. Scad. Gen. Omb. Pl. 58=Polylophium Boiss. (1844). \*officinale Raf. 1.c., nom. (Bubon macedonicus Linn.; B. galbanum Linn.)=Athamanta macedonica (Linn.) Spreng. (Greece; North Africa) et Bubon galbanum Linn. (South

\*GOLATTA Raf. Good Book 57. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 57=Grafia Reichb. (1837).

\*carniolica Raf. l.c., nom. (Athamanta golaka Hacq. sphalm. Raf. "golatta"). Europe=Grafia golaka (Hacq.) Reichb. \*GONANTHERUS Raf. Am. Monthly Mag. Crit. Rev. 2:176. 1818, nom. nov. provis. Myrrhis sensu Michx. = Osmorhiza Raf. (1818).

\*HIPPATON Raf. Good Book 51. 1840, descr. 26 = Seseli Linn. \*gummifer Raf. Good Book 51. 1840, nom., 1913 repr. Scad. Gen. Omb. Pl. 51 (Seseli gummiferum Pall.). Tauria. \*hippomarathrum Raf. 11.cc., nom. (Seseli hippomarathrum

Jacq.). Europe. \*tortuosum Raf. Il.cc., nom. (Seseli tortuosum Linn.). Southern Europe

HYDROCOTYLE Linn.

bipinnata Raf. Med. Repos. II. 5:353. 1808, nom.; Jour.

bipinnata Raf. Med. Repos. II. 5:353. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. Central Atlantic United States=Erigenia bulbosa (Michx.) Nutt. dissecta Raf. Il.cc., nom. Central Atlantic United States= Erigenia bulbosa (Michx.) Nutt. incrassata Raf. Fl. Ludovic. 81. 1817, sphalm. incrassatam, descr. (Hydrocotile Rob. Voy. Louis. 3:461. 1807). Louisiana=Hydrocotyle umbellata Linn.

\*HYPPOMARATHRUM Raf. Act. Soc. Linn. Bordeaux 6:268. 1834, nom., nota, iter. Merr. Proc. Am. Philos. Soc. 86: 88. 1942, op. cit. 90, nom.=Hippomarathrum Hall. (1745)= Seseli Linn.

\*ITASINA Raf. Good Book 51. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 51=Oenanthe Linn.

\*filifolia Raf. 1.c., nom. (Seseli filifolium Thunb.). South

Africa=Oenanthe filiformis Lam. \*KARSTHIA Raf. Good Book 52. 1840, descr., 1913, repr. Scad.

\*KARSTHIA Raf. Good Book 52. 1840, descr., 1913, repr. Scad. Gen. Omb. Pl. 52=Oenanthe Linn.

\*carniolica Raf. l.c., nom. (Oenanthe karsthia Hacq.)=
Oenanthe silaifolia Beib. Caucasus, Southern Europe.

\*KATAPSUXIS Raf. Good Book 58. 1840, descr., 1913, repr.
Scad. Gen. Omb. Pl. 58=Cnidium Cusson (1782).

\*cicutefolia Raf. op. cit. 59, nom. "Laserp[itium] do Villars,"
sphalm.=Ligusticum cicutaefolium Vill. Hist. Pl. Dauph.
2:612 t. 15. 1782—Cnidium silaifolium (Jacq.) Simonkai. 2:612. t. 15. 1782=Cnidium silaifolium (Jacq.) Simonkai. Europe

KERASKOMION Raf. New Fl. N. Am. 4:21. 1836 [1838], descr.; Good Book 46, 55. 1840, nom., 1913, repr. Scad. Gen. Omb. Pl. 46, 55=Cicuta Linn. bulbiferum Raf. Il.cc., descr., nom. (Cicuta bulbifera Linn.).

Canada to Virginia = Cicuta bulbifera Linn. KLONION Raf. New Fl. N. Am. 4:35. 1836 [1838], descr. subgen. Streblanthus Raf. Good Book 56. 1840, nom., ut

gen., 1913 repr. Scad. Gen. Omb. Pl. 56=Eryngium Linn. gracile Raf. op. cit. 36, descr., Il.cc., nom. (Streblanthus gracilis Raf.; Eryngium gracile Baldw.). Florida=Eryngium baldwini Spreng

tenuifolium Raf. Il.cc., descr., nom. (Streblanthus tenuifolius Raf.). Florida=Eryngium baldwini Spreng.

\*KREIDION Raf. Good Book 57. 1840, descr., 1913, repr. Scad. Gen. Omb. Pl. 57=Conioselinum Hoffm. (1816).

\*chinensis Raf. 1.c., nom. (Athamanta chinensis Linn.). Eastern United States = Conioselinum chinense (Linn.) Britton, Sterns & Poggenb.

\*LAOBERDES Raf. Good Book 50. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 50=Apium Linn.

\*repens Raf. 1.c., nom. (Sium repens Linn. f.). Europe= Apium nodiflorum (Jacq.) Lag. subsp. repens (Jacq.) Thellung.

26 This is a parallel case with Helioreos Raf. in that while Rafinesque published Hippaton, in transferring the three specific names he states "types P. hippomarathrum, gummifer, tortum R. all Seseli of authors." It is suspected that here he first selected a generic name commencing with the letter P, and when he changed it, forgot to change the abbreviation in the text; or a typographical error is involved.

\*LASESPITIUM Raf. Good Book 58. 1840, 1913, repr. Scad. Gen. Omb. Pl. 58, sphalm.=Laserpitium Linn.

\*LAVERA Raf. Good Book 50. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 50=Apium Linn.

\*nodiflora Raf. 1.c., nom. (Sium nodiflorum Linn.). Europe= Apium nodiflorum (Linn.) Lag.

\*LEIOTELIS Raf. Good Book 50. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 50=Seseli Linn.

\*annua Raf. l.c., nom. (Seseli annuum Linn.). Europe.

\*LEPISPERMA Raf. Act. Soc. Linn. Bordeaux 6:268. 1834, nom., nota, iter. Merr. Proc. Am. Philos. Soc. 86:88. 1942, op. cit. 90, nom. (Type Leptocaulis divaricatus DC.)= Spermolepis Raf. (1825).

LOMATIUM Raf. Jour. Phys. Chim. Hist. Nat. 89:101. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 239. 1820 (Cogswellia Spreng., 1820); Act. Soc. Linn. Bordeaux 6:268. 1834, nom.; New Fl. N. Am. 4:34. 1836 [1838], nom. \*athamantoides Raf. Good Book 55. 1840, nom., 1913, repr.

Scad. Gen. Omb. Pl. 55 (Cogswellia villosa Schultes; Ferula foeniculacea Nutt.). Missouri=L. foeniculaceum

(Nutt.) Coult. & Rose.

pubescens Raf. Seringe Bull. Bot. 1:216. 1830, descr., iter.
Schlecht, Linnaea 8: Lit.-Ber. 81. 1833; Herb. Raf. 40.
1833, nom. Missouri (Mandan country) = Dakota = L. foeniculaceum (Nutt.) Coult. & Rose.

villosum Raf. Jour. Phys. Chim. Hist. Nat. 89:101. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 239. 1820, descr. Missouri River (Cogswellia villosa Schultes)=L. foenicu-

laceum (Nutt.) Coult. & Rose.

**#LOPHIOPLIS** Raf. New Fl. N. Am. 4:26. 1836 [1838], nom. nov. provis., subgen. Daucus Linn.; Aut. Bot. 106. 1840, nom., subgen. Daucus Linn. (Type Daucus pusillus Michx.) = Daucus Linn.

\*MAGDARIS Raf. Good Book 58. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 58=Trochiscanthes Koch (1824).

\*nodiflora Raf. l.c., nom. (Ligusticum nodiflorum Vill.; Smyrnium nodiflorum All.; Angelica paniculata Lam.). Southern Europe=Trochiscanthes nodiflorus (Vill.) Koch.

MARATHRUM Raf. Jour. Phys. Chim. Hist. Nat. 89:101. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 240. 1820, descr.; Jour. Phys. Chim. Hist. Nat. 91:71. 1821, nom. (=Musineon Raf.); Ann. Gén. Sci. Phys. 7:19. 1820, nom.; Seringe Bull. Bot. 1:217. 1830, nom. iter. Schlecht. Linnaea & Lit.-Ber. 81. 1833; Act. Soc. Linn. Bordeaux 6:268. 1834, nom.; New Fl. N. Am. 1:66. 1836, nom., nota; op. cit. 4:34. 1836 [1838], nom.; Herb. Raf. 40. 1833, nom., nota, not Humb. & Bonpl. (1808), nec Link (1829) = Musenium Nutt. (1840) = Musineon Raf. (1820). descr.; Isis von Oken 1820, 1: Lit. Anz. 240. 1820, descr.;

\*crassifolium Raf. Herb. Raf. 40. 1833, nom. (Seseli divaricatum Pursh). North America = Musineon divaricatum

(Pursh) Nutt.

divaricatum Raf. ex Jacks\*. Ind. Kew. 2:166. 1894 (Seseli divaricatum Pursh). North America=Musineon divaricatum (Pursh) Nutt., ut Musenium.

\*MASPETON Raf. Good Book 58. 1840, descr., 1913 repr. Scad.

Gen. Omb. Pl. 58=Opopanax Koch (1824).

\*chironium Raf. 1.c., nom. (Laserpitium chironium Linn.). Mediterranean region=Opopanax chironium (Linn.) Koch.

\*MELANATON Raf. Good Book 60. 1840, 1913 repr. Scad. Gen. Omb. Pl. 60, nom. nov. Melanoselinum Hoffm. (1814) = Thapsia Linn.

\*MELANOSELINON Raf. Good Book 60. 1840, 1913 repr. Scad. Gen. Omb. Pl. nom. sub Melanton Raf.=Melanoselinum Hoffm. (1814)=Thapsia Linn.

\*MEON Raf. Good Book 59. 1840, nom., 1913 repr. Scad. Gen. Omb. Pl. 59=Meum Adans. (1763).

\*MEONITIS Raf. Good Book 59. 1840, descr., nom. nov. Meum Adans., 1913 repr. Scad. Gen. Omb. Pl. 59 = Meum Adans.

\*chloranthes Raf. 1.c., nom. (Aethusa meum Murr.). Europe=

Meum athamanticum Jacq.

MESODISCUS Raf. New Fl. N. Am. 4:19. 1836 [1838], descr.; Good Book 46, 55. 1840, nom., 1913 repr. Scad. Gen. Omb. Pl. 46, 55 = Cryptotaenia DC. (1829), nom. conserv. (Deringa Adans., 1763; Aulacospermum Neck., 1790).

proliferus Raf. op. cit. 20, descr.; 1.c., nom. Alabama = Crypto-

taenia canadensis (Linn.) DC.

simplex Raf. 1.c., descr., nom. Alabama=praec. var. major Raf. 1.c., descr.

\*MUITIS Raf. Good Book 54. 1840, descr., iter. Scad. Gen. Omb. Pl. 54=Caucalis Linn.

\*daucoides Raf. I.c., nom. (Caucalis daucoides Linn.). Eurasia. MUSINEON Raf. Jour. Phys. Chim. Hist. Nat. 91:71. 1820, nom. nov. Marathrum Raf. (1819), non Marathrum Humbl. & Bonpl., 1808); Ann. Gén. Sci. Phys. 7:19. 1820, nom. (Musenium Nutt., 1840; Daucophyllum Rydb., 1913).

#MUTELLINA Raf. Good Book 59. 1840, nom., subgen. Meonitis Raf. [Meum mutellina Gaertn.], 1913 repr. Scad. Gen. Omb. Pl. 59=Ligusticum Linn.

\*NABADIUM Raf. Good Book 59. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 59=Ligusticum Linn.

\*pyrenaicum Raf. 1.c., nom. (Ligusticum pyrenaicum Gouan). Southwestern Europe.

ODACMIS Raf. New Fl. N. Am. 4:39. 1836 [1838], descr.;

Good Book 46. 1840, nom. = Centella Linn. fascicularis Raf. op. cit. 40, descr.; Aut. Bot. 9. 1840, nom. Florida=Centella repanda (Pers.) Small.

OENANTHE Linn.

\*caroliniana Raf. Seringe Bull. Bot. 1:218. 1830, nom. sub Oxypolis Raf., iter. Schlecht. Linnaea 8: Lit.-Ber. 83. 1833. Carolina=O. carolinensis Pers.=Oxypolis filiformis (Walt.) Britton.

\*filiformis Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom. Kentucky. Prob.=Oxypolis filiformis (Walt.)

Britton.

humilis Raf. Précis Découv. Somiol. 41. 1814, descr.; Jour. Bot. (Desv.) 4:271. 1814, descr. (Aenanthe) Sicily. \*OREOSELINON Raf. Good Book 56. 1840, nom. sub Oreoselis

Raf., 1913 repr. Scad. Gen. Omb. Pl. 56=Oreoselinum Adans. (1763)=Peucedanum Linn.

\*OREOSELIS Raf. Good Book 56. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 56. (Oreoselinum Adans. [Oreoselinon Raf.]) = Peucedanum Linn.

\*cervaria Raf. op. cit. 57, nom. (Athamanta cervaria Linn.).

Europe=Peucedanum cervaria (Linn.) Lapeyr. \*pisana Raf. l.c., nom. (Athamanta pisana Savi). Italy=

Peucedanum palustre Moench.

\*OREOTELIA Raf. Good Book 50. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 50=Seseli Linn.

\*glauca Raf. op. cit. 51, nom. (Seseli glaucum Linn.). Europe=Seseli hippomarathrum Jacq.

\*montana Raf. l.c., nom. (Seseli montanum Linn.). Europe= Seseli montanum Linn.

OREOXIS Raf. Seringe Bull. Bot. 1:217. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 81. 1833; Atl. Jour. 1:145. 1832, descr.

humilis Raf. 11.cc., descr. (Anonymos Torr. Ann. Lyc. Nat. Hist. N. Y. 2:207. 1827, descr. (Cymopterus humilis

Tidestr.).

ORIMARIA Raf. Seringe Bull. Bot. 1:218. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 82. 1833; Atl. Jour. 1:149. 1832, descr.; Herb. Raf. 77. 1833, nom.; New Fl. N. Am. 4:33. 1836 [1838], nom.=Bupleurum Linn.

4:33. 1830 [1830], nom. = Bupteurum Ellin.
filiformis Raf. Il.cc., descr.; Herb. Raf. 61. 1833, nom.; Good
Book 55. 1840, nom., 1913 repr. Scad. Gen. Omb. Pl. 55,
nom. Western Kentucky = ? Bupleurum fontanesii Guss.

\*OSMATON Raf. Good Book 56. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 56=Carum Linn.

\*aromaticum Raf. 1.c., nom. ("Bubon [Bunium] do Willd.").
Greece=Carum copticum (Linn.) Benth. & Hook. f.

OSMORHIZA Raf. Am. Monthly Mag. Crit. Rev. 2:176. 1818, nom. nov. Myrrhis sensu Michx., non Linn.; op. cit. 4:188, 192. 1819, nom. nov. Uraspermum Nutt.; Jour. Phys. Chim. Hist. Nat. 89:257. 1819, nom. (Uraspermum Nutt.); Med. Fl. 2:249. 1830 (sphalm. Osmoshiza), nom., nota; New Fl. N. Am. 4:34. 1836 [1838], nom.; Good Book 53. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 53.

cordata Raf. Med. Fl. 2:249. 1830, nom. subnud. Eastern

North America = O. longistylis (Torr.) DC.

dulcis Raf. I.c., nom., nota (Myrrhis claytoni Michx.?); Good Book 53. 1840, nom., nota, 1913 repr. Scad. Gen. Omb. Pl. 53=praec. Eastern North America.

edulis Raf. Med. Fl. l.c., nom. subnud.; Herb. Raf. 54. 1833, nom. Eastern North America =? praec.

villosa Raf. Med. Fl. 1.c. (vilosa), nom. subnud. Eastern North America=O. longistylis (Torr.) DC.

\*0SM0SHIZA Raf. Med. Fl. 2:249. 1830, nom., sphalm.= Osmorhiza Raf.

\*OXIPOLIS Raf. Act. Soc. Linn. Bordeaux 6:268. 1834, nom. (Archemora DC., 1830); Good Book 59. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 59=seq.

OXYPOLIS Raf. Neogen. 2. 1825, descr.; Med. Fl. 2:250. 1830, nom.; Seringe Bull. Bot. 1:217. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 82. 1833 [Tiedemannia DC., 1829].

caroliniana Raf. Seringe Bull. Bot. 1:218. 1830, nom. (Oenanthe caroliniana [carolinensis] Pers.; O. filiformis Walt.; Sium teretifolium Ell.), iter. Schlecht. 1.c. North America=Oxypolis filiformis (Walt.) Britton.

†denticulata Raf. 1.c., nom. (Sium denticulatum Baldw.), iter. Southeastern United States=O. ternata Schlecht. 1.c.

(Nutt.) A. Heller.

rigida Raf. l.c., nom. (Sium rigidius Linn.), iter. Schlecht. l.c. Eastern North America=O. rigidior (Linn.) Coult. & Rose.

teretifolia Raf. ex Jacks\*. Ind. Kew. 2:394. 1894 (Sium teretifolium Ell.). Southeastern United States=O. filiformis (Walt.) Britton.

†tricuspidata Raf. Seringe Bull. Bot. 1:218. 1830, nom. (Sium tricuspidatum Ell.), iter. Schlecht. l.c. Eastern United States=O. ternata (Nutt.) A. Heller.

triquin[ata] Raf. 1.c., nom. (Angelica triquin[ata] Michx.),

iter. Schlecht. l.c. Eastern United States.

\*OZOTRIX Raf. Good Book 54. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 54=Torilis Adans. (1763).

\*helvetica Raf. 1.c., nom. (Caucalis helvetica Jacq.). Europe=

Torilis arvensis (Huds.) Link.

PACHILOMA Raf. New Fl. N. Am. 4:33. 1836 [1838], descr. (Polytaenia DC.); Good Book 46. 1840, nom.=Polytaenia DC. (1829), non Polytaenium Desv. (1827) (Pleiotaenia Coult. & Rose, 1909; Phanerotaenia St. John, 1919).

\*nutali Raf. 1.c., descr. (Polytaenia nuttallii DC.; Tordylium americanum Nutt.). Arkansas=Polytaenia nuttallii DC. nuttali Raf. ex Jacks\*. Ind. Kew. 2:397, 1894=praec. \*nuttallii Raf. ex S. Wats. Bibl. Ind. N. Am. Bot. 1:431.

1878, nom. = praec.

verticillata Raf. l.c. descr.; Good Book 55. 1840, nom. (Tordylium americanum Nutt.), 1913 repr. Scad. Gen. Omb. Pl. 55. Western Kentucky=Polytaenia nuttallii DC

\*PAXIACTES Raf. Good Book 60. 1840, nom. nov. Tordyliopsis DC., 1913 repr. Scad. Gen. Omb. Pl. 60=Heracleum

Linn.

PELTACTILA Raf. New Fl. N. Am. 4:28. 1836 [1838], descr.; Good Book 55. 1840, nom., 1913 repr. Scad. Gen. Omb. Pl. 55=Daucus Linn.

aurea Raf. New Fl. N. Am. l.c., nom. (Daucus aureus Desf.).

Mediterranean region.

grandistora Raf. 1.c., nom. (Daucus grandistorus Desf.). Algeria. hispida Raf. 1.c., nom. (Daucus hispidus Desf.). Mediterranean

region. parviflora Raf. 1.c., nom. (Daucus parviflorus Desf.). North

Africa.

\*PERFOLISA Raf. Good Book 54. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 54=Bupleurum Linn.

\*obtusifolia Raf. l.c., nom. (Bupleurum rotundifolium Linn.). Europe.

\*PEUCEDANON Raf. New Fl. N. Am. 4:20. 1836 [1838], nom. sub Sataria Raf.=Peucedanon St. Hil. (1880)= Peucedanum Linn.

PEUCEDANUM Linn.

verticillatum Raf. Fl. Ludovic. 81. 1817, descr. (Peucedanum Rob. Voy. Louis. 3:461, 1807). Louisiana=? Ptilimnium nuttallii (DC.) Britton.

PHAIOSPERMA Raf. Herb. Raf. 77. 1833, descr.; New Fl. N. Am. 4:32. 1836 [1838], descr.; Good Book 46. 1840, nom.=Polytaenia DC. (1829).

pulverulenta Raf. New Fl. N. Am. 4:32. 1836 [1838], descr.; Good Book 55. 1840, nom., 1913 repr. Scad. Gen. Omb. Pl. 55. Florida=Polytaenia nuttallii DC.

trifida Raf. Herb. Raf. 77. 1833, descr.; New Fl. N. Am. 1.c., descr.; Good Book 55. 1840, nom., 1913 repr. Scad. Gen. Omb. Pl. 55. Kentucky=prace.

\*verticillata Raf. Herb. Raf. 77. 1833, descr.; New Fl. N. Am.

1.c., nom. Kentucky=praec. PHELLANDRIUM Linn. = Oenanthe Linn.

\*tuberosum Nutt. ex Raf. New Fl. N. Am. 4:29. 1836 [1837], nom. in syn. sub Entaskion tuberosum Raf. North America=Trepocarpus aethusae Nutt.

\*PINASGELON Raf. Good Book 51, 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 51 = Cnidium Cusson (1782).

\*monniera Raf. op. cit. 52, nom. (Selinum monnieri Linn.). Europe=Cnidium monnieri (Linn.) Cusson.

\*POLGIDON Raf. Good Book 53. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 53=Chaerophyllum Linn.

\*bulbosum Raf. 1.c., nom. (Chaerophyllum bulbosum Linn.). Europe, Asia Minor.

\*temulum Raf. 1.c., nom. (Chaerophyllum temulum Linn.). Europe, North Africa, Asia Minor.

\*POLYTEMIA Raf. Herb. Raf. 77. 1833, nom., sphalm.=Polytenia Raf. (1836)=Polytaenia DC. (1829).

\*trifida Raf. 1.c., nom. alt. Phaiosperma trifida Raf. Kentucky=Polytaenia nuttallii DC.

\*verticillata Raf. 1.c., nom. alt. Phaiosperma verticillata Raf. Kentucky=Polytaenia nuttallii DC.

POLYTENIA Raf. New Fl. N. Am. 4:33. 1836, nom. in syn. sub Pachiloma Raf.; Herb. Raf. 77. 1833, nom.=Poly-

taenia DC. PRIONITIS Adans.; Raf. Good Book 58. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 58=Falcaria Host. (1827).

\*falcaria Raf. l.c., nom. (Sium falcaria Linn.). Europe= Falcaria sioides (Wibel) Aschers.

\*PTERATON Raf. Good Book 54. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 54=Bupleurum Linn.

\*fragrans Raf. 1.c., nom. (Bupleurum coriaceum L'Hérit.; B. arborescens Jacq.; B. obliquum Vahl; B. gibraltaricum Lam.). Spain=Bupleurum gibraltaricum Lam.

PTILIMNIUM Raf. Am. Monthly Mag. Crit. Rev. 4:192. 1819, nom., nota (Ammi capillaceum Michx.); Jour. Phys. Chin. Hist. Nat. 89:258. 1819, nom., nota (Ammi capillaceum Michx.); Neogen. 2. 1825, descr.; Seringe Bull. Bot. 1:217. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 82. 1833; Act. Soc. Linn. Bordeaux 6:268. 1834, nom. (Discopleura DC., 1830); New Fl. N. Am. 4:33. 1836 [1838], nom., nota (Discopleura DC., 1830); Good Book 55. 1840, nom. copleura DC., 1830), 1913 repr. Scad. Gen. Omb. Pl. 55 (Discopleura DC., 1830).

†capillaceum (Michx.) Raf. Seringe Bull. Bot. 1:217. 1830, nom. (Ammi capillaceum Michx.), iter. Schlecht. l.c.; Herb. Raf. 70. 1833, nom. Long Island, New Jersey, Chesapeake

Bay (Discopleura capillacea DC.)

†costatum (Ell.) Raf. Seringe Bull. Bot. 1.c., nom. (Ammi costatum Ell.), iter. Schlecht. 1.c. Southeastern United

States (Ptilimnium costatum Coult. & Rose, 1909).

†juneeum Raf. 1.c., descr., iter. Schlecht. 1.c.; Herb. Raf. 77.
1833, descr.; New Fl. N. Am. 4:34. 1836 [1838], nom., nota. Western Kentucky=Ptilimnium capillaceum (Michx.) Raf.

\*PULLIPES Raf. Good Book 54. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 54=Caucalis Linn.

\*leptophyla Raf. l.c., nom. (Caucalis leptophylla Linn.). Mediterranean region.

\*RAZULIA Raf. Good Book 52. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 52=Angelica Linn.

\*alpina Raf. 1.c., nom. (Angelica razuli Gouan). Pyrenees Mountains.

\*SAGAPENON Raf. Good Book 58. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 58 (Danaa All. 1785) = Physospermum Cusson (1782).

\*aquilegifolium Raf. l.c., nom. (Ligusticum aquilegifolium Willd.; Danaa aquilegifolia All.). Southern Europe= Physospermum aquilegifolium (All.) Koch.

SATARIA Raf. New Fl. N. Am. 4:20. 1836 [1838], descr., Good Book 55. 1840, nom., 1913 repr. Scad. Gen. Omb. Pl.

55=Oxypolis Raf. (1825). linearis Raf. New Fl. N. Am. 4:21. 1836 [1838], descr.

(Peucedanum ternatum Nutt.); Good Book 55. 1840, nom., 1913 repr. Scad. Gen. Omb. Pl. 55. Georgia, Alabama= Oxypolis ternata (Nutt.) Heller. var. longipes Raf. New Fl. l.c., descr.

\*SCADIASIS Raf. New Fl. N. Am. 4:34. 1836 [1838], nom. nov. provis. (Ferula villosa Walt.); Good Book 56. 1840, nom., 1913 repr. Scad. Gen. Omb. Pl. 56=Angelica Linn. SELINON Raf. Jour. Phys. Chim. Hist. Nat. 89:259. 1819,

nom. nov. Selinum Linn.

\*acaule Raf. Jour. Phys. Chim. Hist. Nat. 89:100. 1819, nom. (Selinum acaule Pursh), iter. Isis von Oken 1820, 1: Lit. Anz. 239. 1820, nom. (Selinum acaule Pursh). Central United States=Cymopterus acaulis (Pursh) Raf.

\*carvifolia Raf. Good Book 51. 1840, nom. in syn. sub Chabrea Raf., 1913 repr. Scad. Gen. Omb. Pl. 51=Selinum carvifolium Linn. Europe.

\*chabrei Raf. 1.c., nom. [Selinum chabraei Kunth] = Cnidium

dubium (Schkuhr) Thellung. Europe. \*palustre Raf. Good Book 52. 1840, nom., 1913 repr. Scad. Gen. Omb. Pl. 52=Selinum palustre Linn.=Peucedanum

palustre (Linn.) Moench. Europe.
\*SIFLORA Raf. Seringe Bull. Bot. 1:217. 1830, nom. sub
Spermolepis Raf., iter. Schlecht. Linnaea 8: Lit.-Ber. 82.

1833, sphalm.=Sison Linn.

\*pusilla Raf. 1.c., nom., iter. Schlecht. 1.c. (Sison pusillum Michx.). Southeastern United States=Spermolepis divaricata (Walt.) Raf.

\*SIKIRA Raf. Good Book 53. 1840, descr., 1913 repr. Scad.

Gen. Omb. Pl. 53=Chaerophyllum Linn.

\*aromatica Raf. l.c., nom. (Chaerophyllum aromaticum Linn.) Europe.

\*hirsuta Raf. 1.c., nom. (Chaerophyllum hirsutum Linn.) Europe.

\*SILAUS Raf. Good Book 57. 1840, descr., 1913 repr. Scad. Omb. Pl. 57=Silaus Bernh. (1800)=Silaum Mill. Gen. (1754).

\*pratensis Raf. 1.c., nom. (Peucedanum silaus Linn.). rope=Silaum silaus (Linn.) Schinz & Thellung (Silaus

flavescens Bernh.).

\*SILERIUM Raf. Good Book 51. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 51=Trochiscanthes Koch (1824).

\*nodiflorum Raf. 1.c., nom. (Smyrnium nodiflorum All.; Ligusticum nodiflorum Vill.; Angelica paniculata Lam.). Southern Europe=Trochiscanthes nodiflorus (All.) Koch.

SIUM Linn.

\*heterophylum Raf. Herb. Raf. 69. 1833, nom. Long Island, New Jersey, Chesapeake Bay=S. suave Walt.

New Jersey, Chesapeake Bay=S. suave Walt.
rugosum Raf. Med. Fl. 2:264. 1830, nom., nota; Atl. Jour.
1:151. 1832, descr. New York to Ohio=S. suave Walt.
SIUMIS Raf. New Fl. N. Am. 4:31. 1836 [1838], nom. nov.
Sium Linn.; Good Book 50. 1840, descr. (Sium Linn.;
Sion Adans.), 1913 repr. Scad. Gen. Omb. Pl. 50=Sium

heterophyla Raf. New Fl. N. Am. 4:31. 1836 [1838], descr. [Sium heterophylum Raf.]. New Jersey to Illinois=Sium

suave Walt.

SPERMOLEPIS Raf. Neogen. 2. 1825, descr.; Seringe Bull. Bot. 1:217. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 82. 1833 (Leptocaulis Nutt., 1829).

†divaricata (Walt.) Raf. Seringe Bull. Bot. 1:217. 1830, descr. (Sison pusillum Michx.; Daucus divaricatus Walt.; Ammi divaricata Pers.; Ligusticum pusillum Pers.), iter. Schlecht. Linnaea 8: Lit.-Ber. 82. 1833. Eastern North

STAFLINUS Raf. New F1. N. Am. 4:28. 1836 [1838], descr Good Book 55. 1840, nom., 1913 repr. Scad. Gen. Omb. Pl.

55=Daucus Linn.

crinitus Raf. 11.cc., nom. (Daucus setifolius Desf.). North Africa.

setifolius Raf. 11.cc., nom. (Daucus setifolius Desf.). North

\*STOIBRAX Raf. Good Book 52. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 52=Carum Linn.

\*dichotomum Raf. 1.c., nom. (Pimpinella dichotoma Linn.) Mediterranean region=Carum dichotomum (Linn.) Benth. & Hook, f.

STREBANTHUS Raf. Seringe Bull. Bot. 1:218. 1830, descr., iter. Schlecht. Linnaea 8: Lit.-Ber. 82. 1833=Streblanthus Raf. (1832) = Eryngium Linn.

auriculatus Raf. 1.c., descr., iter. Schlecht. 1.c. Western Kentucky=Streblanthus auriculatus Raf.=Eryngium prostratum Nutt.

gracilis Raf. ex Jacks\*. Ind. Kew. 2:1002. 1895=Streblanthus gracilis Raf.=Eryngium baldwini Spreng. Florida.

heterophylus Raf. ex Jacks\*. 1.c. = Streblanthus heterophylus Raf. = Eryngium prostratum Nutt. Arkansas.

humilis Raf. ex Jacks\*. 1.c.=Streblanthus humilis Raf.= Eryngium baldwini Spreng. Florida.

tenuifolius Raf. ex Jacks\*. l.c.=Streblanthus tenuifolius Raf.=Eryngium baldwini Spreng. Florida.

STREBLANTHUS Raf. Atl. Jour. 1:149. 1832, descr.; New Fl. N. Am. 4:34. 1836 [1838], descr.; Herb. Raf. 77. 1833, nom.; Good Book 56. 1840, nom., 1913 repr. Scad. Gen. Omb. Pl. 56=Eryngium Linn.

\*auriculatus Raf. Atl. Jour. 1:149. 1832, descr.; Herb. Raf. 61. 1833, nom.; New Fl. N. Am. 4:35. 1836 [1838], descr.; Good Book 56. 1840, nom., 1913 repr. Scad. Gen. Omb. Pl. 56. Western Kentucky=Eryngium prostratum Nutt.

\*gracilis Raf. New Fl. N. Am. 4:36. 1836 [1838]. descr. (Eryngium gracile Baldw.). Florida=Eryngium baldwini

\*heterophylus Raf. op. cit. 35, descr. (Eryngium prostratum Nutt.); Good Book 56. 1840, nom., 1913 repr. Scad. Gen. Omb. Pl. 56. Arkansas=Eryngium prostratum Nutt.

\*humilis Raf. Il.cc., descr., nom. (Eryngium gracile sensu Torr., E. baldwinii Spreng.). Florida (Tampa) = Eryngium

baldwini Spreng.

\*tenuifolius Raf. New Fl. N. Am. 4:36, 1836 [1838], descr. (Eryngium polycephalum Baldw.). Florida=Eryngium baldwini Spreng.

\*TEPSO Raf. Good Book 54. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 54=Bupleurum Linn.

\*odontites Raf. 1.c., nom. (Bupleurum odontites Linn.). Mediterranean region.

THASPIUM Nutt.

\*tenuifolium Raf. Herb. Raf. 78. 1833, descr.; New Fl. N. Am. 4:34. 1836 [1838], nom., nota. Kentucky?=? Oxypolis rigidior (Linn.) Coult. & Rose.

\*THYSELIUM Raf. Good Book 52. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 52=Peucedanum Linn.

\*palustre Raf. 1.c., nom. (Selinum palustre Linn.) = Peucedanum palustre (Linn.) Moench. Europe. \*TIMORON Raf. Good Book 56. 1840, descr., 1913 repr. Scad.

Gen. Omb. Pl. 56=Capnophyllum Gaertn. (1791). \*dichotomum Raf. l.c., nom. (Conium dichotomum Desf.) = Capnophyllum dichotomum Lag. Mediterranean region.

TIRICTA Raf. New Fl. N. Am. 4:22. 1836 [1838], descr.; Good Book 46, 54. 1840, nom., 1913 repr. Scad. Gen. Omb. Pl. 46, 54=Daucus Linn.

daucoides Raf. op. cit. 23, descr.; Good Book II.cc., nom., 1913 repr. Scad. Gen. Omb. Pl. II.cc., nom.; Aut. Bot. 106. 1840, nom. Pine barrens of southern New Jersey=Daucus carota Linn.

\*TOBION Raf. Good Book 52. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 52=Pimpinella Linn.

\*bubonoides Raf. 1.c., descr. (Pimpinella bubonoides DC.; Apium lusitanicum Mill.). Spain, Morocco.

\*TRAGOLINUM Raf. Good Book 60. 1840, 1913 repr. Gen. Omb. Pl. 60, nom. nov. Tragoselinum Adans. (1763)= Pimpinella Linn.

TRICLINIUM Raf. Ludovic. 79. 1817, descr.: Am. Monthly Mag. Crit. Rev. 2:267. 1818, nom. (Sanicula marilandica Linn.); op. cit. 4:192. 1819, nom., nota=Sanicula Linn.

marilandicum (Linn.) Raf. ex Jacks\*. Ind. Kew. 2:1110. 1895 (Sanicula marilandica Linn.). Eastern North America= Sanicula marilandica Linn.

odoratum Raf. Fl. Ludovic. 80. 1817, descr. (Panax Rob. Voy. Louis. 3:459. 1807). Louisiana=? Sanicula gregaria Bickn. 1895 (? S. odorata Bickn., 1897).

\*TROCDARIS Raf. Good Book 50. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 50=Carum Linn.

\*verticillata Raf. 1.c., nom. (Sison verticillatum Linn.; verticillatum Lam.). Europe=Carum verticillatum (Linn.) Koch.

\*TROPENTIS Raf. Good Book 59. 1840, descr., 1913 repr. Scad. Gen. Omb. Pl. 59=Seseli Linn.

\*sibirica Raf. 1.c., nom. ([Ligusticum sibiricum Spreng.]; Ligusticum foliis triplicato pinnatis Gmel. Fl. Sibir. 1:196. t. 45. 1747). Siberia=Seseli sibirica (Linn.) Koch, var. sibiricum (Linn.) Thellung.

\*retzi Raf. 1.c., nom. (Ligusticum retzii Vitm.; L. peloponense Retz.). Greece.

\*TURBITHA Raf. Good Book 51. 1840, descr., 1913 repr. Scad. Gen. Umb. Pl. 51=? Athamanta Linn.

\*emulans Raf. 1.c., nom. (Seseli turbith Linn.) Europe=? Athamanta matthioli Wulf.

UPOPION Raf. New Fl. N. Am. 4:29. 1836 [1838], descr.;
 Good Book 46, 55. 1840, nom. nota, 1913 repr. Scad. Gen.
 Omb. Pl. 46, 55=Thaspium Nutt. (1818).

cordatum Raf. op. cit. 31, descr., l.c., nom. Alleghany Mountains=Thaspium trifoliatum (Linn.) A. Gray.

heterophylum Raf. 11.cc., descr., nom. (Thaspium atropurpureum Nutt.; Smyrnium atropurpureum Lam.) = praec.

**UPOPION** (continued).

lobatum Raf. op. cit. 30, descr., 1.c., nom. Alleghany Mountains of Pennsylvania and Virginia=praec.

var. rigida Raf. 11.cc., descr.

pinnatum Raf. Il.cc., descr., nom. Alleghany Mountains and Kentucky=praec.

trifoliatum Raf. 11.cc., descr., nom. New Jersey to Kentucky=

praec.

VISNAGA Gaertn.; Raf. New Fl. N. Am. 4:28. 1836 [1838], descr.; Good Book 55. 1840, nom. 1913 repr. Scad. Gen. Omb. Pl. 55 (Gohoria Neck.) = Ammi Linn. meoides Raf. Il.cc., nom. [Ammi meoides Pers.]. Asia.

vera Raf. Il.cc., nom. [Ammi visnaga Lam.]. Mediterranean

region.

WASHINGTONIA Raf. Am. Monthly Mag. Crit. Rev. 2:176. 1818, nom. nov. provis. Myrrhis sensu Michx.=Osmorhiza Raf. (1818).

\*ZIGARA Raf. Good Book 54. 1840, descr., 1913, repr. Scad. Gen. Omb. Pl. 54=Bupleurum Linn.

\*teuis Raf. l.c., nom. (Bupleurum tenue Salisb.). Mediter-

ranean region.

ZIZIA Koch. parvifolia Raf. New Fl. N. Am. 4:31. 1836 [1838], descr. Alleghany Mountains =? Thaspium trifoliatum (Linn.) A. Gray, var. flavum Blake, Rhodora 20:33. 1918.

# CORNACEAE

CORNUS Linn. atrata Raf. Alsogr. Am. 61. 1838, descr. Alabama, Florida.

atrata Kai. Alsogr. Am. 01. 1636, descr. Alabama, Florida. cinerea Raf. op. cit. 59, descr. Alleghany Mountains. comosa Raf. op. cit. 63, descr. Kentucky=C. racemosa Lam. \*cyananthes Raf. l.c., descr. Canada=seq. cyananthus Raf. Atl. Jour. 1:151. 1832, descr. Canada (Islands of the Saint Lawrence River). dichotoma Raf. Alsogr. Am. 60. 1838, descr. Siberia.

lancifolia Raf. 1.c., nom. alt. Cornus serotina Raf. Kentucky,

Illinois, Missouri.

†obliqua Raf. Western Rev. Miscel. Mag. 1:229. 1819, descr.; Ann. Nat. Ann. Synop. 13. 1820, descr. Kentucky River (C. purpusii Koehne).

\*obliquata Raf. First Cat. Bot. Gard. Transylv. Univ. 12.

1824, nom. Kentucky=praec. oblongifolia Raf. ex DC. Prodr. 4:272. 1830, nom. sub Cornus sericea L'Hérit. var. oblongifolia DC. 1.c. Eastern North America = C. amomum Mill.

parvifolia Raf. Alsogr. Am. 61. 1838, descr. Kentucky to

Alabama

polygama Raf. Fl. Ludovic. 78. 1817, descr. (Cornus 2 Rob. Voy. Louis. 3:456. 1807); Herb. Raf. 55. 1833, nom. Med. F1. 2:213. 1830, nom.; Alsogr. Am. 61. 1838, descr.; New F1. N. Am. 3:95. 1836 [1838], nom. Louisiana=? C. obliqua Raf.

punctata Raf. Alsogr. Am. 62. 1838, descr. Near Lake Erie= C. alternifolia Linn.

riparia Raf. l.c., descr. Virginia and Kentucky=praec. var. rugosa Raf. l.c., descr. New York to Virginia.

rotundifolia Raf. 1.c., descr. Alleghany Mountains=praec.
†serotina Raf. First Cat. Bot. Gard. Transylv. Univ. 12.
1824, nom.; Herb. Raf. 57. 1833, nom.; Alsogr. Am. 60.
1838, descr. Kentucky, Illinois, Missouri.
\*sibirica Raf. Alsogr. Am. 60. 1838, descr. (Cornus alba auct.). Siberia=Cornus alba Linn. subsp. tatarica (Mill.)

Wang.

suffruticosa Raf. Atl. Jour. 1:151. 1832, descr.; Herb. Raf. 57. 1833, nom.; Alsogr. Am. 61. 1838, descr. Near Lakes Champlain and Erie.

undulata Raf. Alsogr. Am. 61. 1838, descr. Alabama=C.

alternifolia Linn.

#CYNOXYLON Raf. Med. Fl. 1:132. 1828, nom., sect. Cornus Linn., iter. Man. Med. Bot. 132. 1841; Alsogr. Am. 59. 1838, descr. (gen. vel subgen., op. cit. 58) = Cornus Linn., sect. Cynoxylon Raf. (Benthamidia Spach, 1839); see Hutchinson Ann. Bot. II. 6:91-92, 1942.
floridum Raf. ex Jacks\*. Ind. Kew. 1:689. 1893 (Cornus florida Linn.). North America.

EUKRANIA Raf. Alsogr. 59. 1838, descr.=Cornus Linn., sect. Macrocarpium Spach.

canadensis Raf. ex Jacks\*. Ind. Kew. 1:912. 1893 (Cornus canadensis Linn.). North America.

cyananthes Raf. ex Jacks\*. 1.c. (Cornus cyananthes Raf.). North America.

mascula Raf. ex Jacks\*. 1.c. (Cornus mascula Linn.) = Cornus mas Linn. Europe (Macrocarpium mas Nakai).

suecica Raf. ex Jacks\*. 1.c. (Cornus suecica Linn.). Europe.

(Chamaepericlymenum succicum Aschers. & Graebn.).
#KRANIOPSIS Raf. Alsogr. Am. 58. 1838, descr. subgen.
Cornus Linn.=Cornus Linn. sect. Thelycrania (Endl.) C. A.

#MESOMERA Raf. Alsogr. Am. 58. 1838, descr., subgen. Cornus Linn. (Type Cornus alternifolia Linn.), sphalm.=

#MESOMORA Raf. Alsogr. Am. 59, 62, 76, 1838, nom., subgen. Cornus Linn. [Mesomora Rudb. Lapp. 98. ex Linn. Fl. Suecica 47. 1745, ed. 2, 48. 1755, sub Cornus suecica Linn.] = Cornus Linn.

TELUKRAMA Raf. Alsogr. Am. 64. 1838, descr. Good Book 48.

1840, nom.=? Cornus Linn.

obovata Raf. I.c., descr. Mountains of Carolina.

# CLETHRACEAE

CLETHRA Linn. \*angustifolia Raf. Aut. Bot. 6. 1840, descr., non DC. (1838).

Florida=C. alnifolia Linn.

\*bracteata Raf. op. cit. 7, descr., non Griseb. (1859). Florida. \*cordata Raf. l.c., descr. "probably African." \*cuneifolia Raf. Herb. Raf. 57. 1833, nom. Florida. \*pumila Raf. Aut. Bot. 7. 1840, descr. Southern New Jersey=Clethra alnifolia Linn.

# PIROLACEAE

BRAXILIA Raf. Aut. Bot. 102. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:94. 1921, nom.=Pyrola Linn. (Erxlebenia Opiz, 1852)

\*heterophyla Raf. op. cit. 103, descr. Alleghany Mountains. \*media Raf. 1.c., descr. (Pyrola minor auct. nonnul.). England, Germany. (Braxilia minor House; Erxlebenia minor Rydb.)

parvifolia Raf. op. cit. 102, descr. (Pyrola minor Linn.); Pennell, 1.c., nom. Sweden, Labrador. (Braxilia minor House; Erxlebenia minor Rydb.).

\*squamata Raf. op. cit. 103, descr. Labrador.

\*viridiflora Raf. I.c., descr. Alleghany Mountains of Pennsylvania.

CHIMAPHILA Pursh.

durandi Raf. Atl. Jour. 1:119. 1832, nom. alt. Pyrola durandi Raf. Maryland=seq. maculata (Linn.) Pursh. North America.

var. durandi Raf. Aut. Bot. 105. 1840, descr. (Chimaphila durandi Raf.). Maryland. heterophyla Raf. l.c., nom. lanceolata Raf. l.c., nom. ovata Raf. 1.c., nom.

uniflora Raf. I.c., nom. HYPOPITHIS Raf. Med. Repos. III. 1:297. 1810, nom., nota=

\*dentata Raf. 1.c., descr. Virginia and Maryland.

\*lanuginosa Raf. 1.c., descr. (Monotropa lanuginosa Michx.). Carolina.

\*racemosa Raf. l.c., descr. Maryland, Pennsylvania. \*secunda Raf. l.c., descr. (Monotropa lanuginosa Michx., var. [spica cernua et erecta floribus secundis] Michx.). Carolina.

\*stricta Raf. 1.c., descr. Maryland.

HYPOPITYS Adans.

dentata Raf. ex Jacks\* Ind. Kew. 1:1198. 1893 (Hypopithis dentata Raf.). Virginia and Maryland. lanuginosa Raf. ex Jacks\*. l.c. (Hypopithis lanuginosa Raf.).

Carolina.

racemosa Raf. ex Jacks\*. 1.c. (Hypopithis racemosa Raf.). Maryland, Pennsylvania.

secunda Raf. ex Jacks\*. 1.c. (Hypopithis secunda Raf.). Carolina.

stricta Raf. ex Jacks\*. 1.c. (Hypopithis stricta Raf.). Maryland.

MONOTROPA Linn.

\*procera James ex Raf. Casket 1832:91. 1832, nom., nota; Sat. Eve. Post 11(552):[4]. 1832, nom., nota. New York (Albany) = Pterospora andromedea Nutt.

ODOSTIMA Raf. Aut. Bot. 104. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:94. 1921, nom. = Moneses Salisb. (1821). \*acutiflora Raf. op. cit. 105, descr. Labrador to New York=

Moneses uniflora (Linn.) A. Gray.
\*caulina Raf. op. cit. 104, descr. (Pyrola uniflora Li
Northern Europe=Moneses uniflora (Linn.) A. Gray. (Pyrola uniflora Linn.).

\*grandiflora Raf. op. cit. 105, descr. Canada = Moneses uniflora (Linn.) A. Gray.

\*obovata Raf. l.c., deser. New England=Moneses uniflora (Linn.) A. Gray.

\*orbiculata Raf. op. cit. 104, 105, descr. Europe=Moneses

uniflora (Linn.) A. Gray. ORTHILIA Raf. Aut. Bot. 103. 1840, descr.: Pennell, Bull. Torr. Bot. Club 48:94. 1921, nom.=Pyrola Linn. (Ramischia Opiz, 1852).

\*dentata Raf. op. cit. 104, descr. Alleghany Mountains. parvifolia Raf. 1.c., descr. (Pyrola secunda Linn.); Pennell, 1.c., nom. Bavaria=Pyrola secunda Linn. (Orthilia secunda

House). \*procumbens Raf. 1.c., descr. Canada, New England, New

 $\mathbf{Vork}$ #ORTHYLIA Raf. Med. Fl. 2:70. 1830, descr., subgen. Pyrola Linn. (Type Pyrola minor Linn.) = praec.

\*PIPSEVA Raf. Aut. Bot. 105. 1840, descr.=Chimaphila

Pursh (1814).

\*officinalis Raf. op. cit. 106, nom. (Pyrola umbellata Linn.; Chimaphila corymbosa Pursh). North America, Europe — Chimaphila umbellata (Linn.) Pursh, var. cisatlantica Blake. var. angustifolia Raf. 1.c., nom.

cuneifolia Raf. 1.c., nom. multiflora Raf. l.c., nom. pauciflora Raf. l.c., nom.

†PSEVA Raf. Am. Monthly Mag. Crit. Rev. 2:266. 1818, nom., nota (Chimaphila Pursh, 1814); Jour. Phys. Chim. Hist. Nat. 89:261. 1819, nom. (Chimaphila Pursh)=Chimaphila Pursh (1814).

#PSISEVA Raf. Med. Fl. 2:70. 1830, descr., subgen. Pyrola Linn. (Type Pyrola umbellata Linn.) = Pseva Raf. (1818) =

Chimaphila Pursh (1814).

PTEROSPORA Nutt. andromedea Nutt.

var. elatior Raf. Med. Fl. 2:68. 1830, nom.; Casket 1832: 91. 1832, nom.; Sat. Eve. Post 11(552):[4] 1832,

flavicaulis Raf. 11.cc., nom. leucorhiza Raf. 11.cc., nom. pauciflora Raf. Il.cc., nom.

PYROLA Linn.

\*bifolia Raf. Aut. Bot. 100. 1840, descr. Germany. \*cespitosa Raf. op. cit. 101, descr. (Pyrola rotundifolia sensu

Torr.). New York=Pyrola americana Sweet. durandi Raf. Atl. Jour. 1:119. 1832, descr. Maryland, near Baltimore (Chimaphila durandi Raf.)=Chimaphila maculata (Linn.) Pursh.

flexuosa Raf. Atl. Jour. 1:151. 1832, descr. Islands of the Saint Lawrence River near Lake Ontario.

\*grandiflora Raf. Aut. Bot. 101. 1840, descr. Labrador. \*heterophyla Raf. 1.c., descr. (Pyrola rotundifolia sensu Torr.).

New York to Virginia=Pyrola americana Sweet).

\*hybrida Raf. 1.c., descr. Alleghany Mountains.

var. pauciflora Raf. 1.c., nom.

uniflora Raf. l.c., nom. \*monophyla Raf. op. cit. 100, nom. alt. P. orbiculata Raf. var. unifolia Raf. Germany.

\*obovata Raf. 1.c., descr. Alleghany Mountains.
\*orbiculata Raf. var. unifolia Raf. 1.c., descr. Germany= Pyrola monophyla Raf.

\*votata Raf. op. cit. 102, descr. Alleghany Mountains.

\*petiolaris Raf. op. cit. 99, descr. Bohemia.

reticulata Raf. ex DC. Prodr. 7:773. 1839, nom. in syn.;

Raf. op. cit. 100, descr. (Pyrola rotundifolia auct. Am.).

Alleghany Mountains=Pyrola elliptica Nutt. \*subcordata Raf. op. cit. 102, descr. England, Germany.

\*unifolia Raf. op. cit. 100, descr. New Jersey.
\*virgata Raf. op. cit. 102, descr. Appalachian Mountains. SCHWEINITZIA Ell. (1817)=Monotropsis Schwein. (1817).
\*odorata Raf. Am. Monthly Mag. Crit. Rev. 3:99. 1818, nom.;
Small, N. Am. Fl. 29:15. 1914, nom. in syn.=Monotropsis odorata Schwein.

#STREPTILIA Raf. Aut. Bot. 99. 1840, nom., nota, subgen. Pyrola Linn. (Type Pyrola elliptica Nutt.)=Pyrola Linn. #STREPTYLIA Raf. Med. Fl. 2:70. 1830, descr., subgen. Pyrola Linn. (Type Pyrola rotundifolia Linn.)=Pyrola Linn.

**#TOXILIS** Raf. Aut. Bot. 101, 1840, descr., subgen. Pyrola Linn. (Type Pyrola grandiflora Raf.).

## ERICACEAE

ANDROMEDA Linn.

\*obovata Raf. Herb. Raf. 57. 1833, nom. Florida=Lyonia lucida (Lam.) K. Koch.

\*pauciflora Raf. 1.c., nom. Appalachian Mountains.

ARBUTUS Linn.

obtusifolia Raf. Fl. Ludovic. 55. 1817, descr. (Arbutus Rob. Voy. Louis. 3:421. 1807); New Fl. N. Am. 3:95. 1836 [1838], nom. Louisiana=Vaccinium arboreum Marsh. (1785); see Camp, Castanea 6:83. 1941.

AZALEA Linn.=Rhododendron Linn.

fragrans Raf. Ann. Nat. Ann. Synop. 12. 1820, descr., non Adams (1808). Maryland, Virginia = Rhododendron arborescens (Pursh) Torr. (Azalea arborescens Pursh).

BLAIRIA Gled. = Blaeria Linn.

\*pentandra Raf. Aut. Bot. 15. 1840, nom. sub Vestia Willd. = Vestia lycioides Willd. Chile.

†DIPLARIA Raf. Herb. Raf. 58. 1833, nom.; DC. Prodr. 7:610. 1839, nom. in syn. sub Cassandra G. Don=Chamaedaphne Moench. (1794).

\*ferruginea Raf. Herb. Raf. 1.c., nom. (Andromeda calyculata Linn.). Europe, Asia, North America = Chamaedaphne calyculata (Linn.) Moench.

\*lanceolata Raf. 1.c., nom. Appalachian Mountains.

EXOLEPTA Raf. Am. Monthly Mag. Crit. Rev. 4:193. 1819, nom., nota (Andromeda calyculata Linn.)=Chamaedaphne Moench. (1794).

GAULTHERIA Linn.

repens Raf. ex Jacks\*. Ind. Kew. 1:1004. 1893 (Gautiera repens Raf.; Gaultheria procumbens Linn.). Eastern North America=G. procumbens Linn.

\*GAULTIERA Raf. Fl. Tellur. 1:18. 1836 [1837], nom.=praec. GAUTIERA Raf. Med. Fl. 1:202. f. 40. 1828, descr., iter. Man. Med. Bot. 202. f. 40. 1841; Med. Fl. 2:222. 1830, nom., nota = Gaultheria Linn.

\*repens Raf. Med. Fl. et Man. Med. Bot. Il.cc., nom. nov. Gaultheria procumbens Linn. North America.

\*hispidula Raf. op. cit. 205, nom. [Gaultheria hispidula Muhl.] North America = Chiogenes hispidula (Linn.) Torr. & Gray. GLYCIPHYLLA Raf. Am. Monthly Mag. Crit. Rev. 4:192. 1819,

nom., nota (Vaccinium hispidulum Michx.; Gaultheria serpyllifolia Pursh); Jour. Phys. Chim. Hist. Nat. 89:259. 1819, nom., nota; Med. Fl. 2:49. 1830, descr. (subgen. Oxycocus Raf.) = Chiogenes Salisb. (1817). hispidula Raf. ex Jacks\*. Ind. Kew. 1:1039. 1893 (Vaccinium hispidulum Michx. Caultheria cartellifelia Pursh.)

hispidulum Michx.; Gaultheria serpyllifolia Pursh). North America—Chiogenes hispidula (Linn.) Torr. & Gray.

\*GUALTERIA Raf. Fl. Tellur. 1:18. 1836 [1837], nom. (Gaultiera Raf.) = Gaultheria Linn.

\*HEMICLIS Raf. New Fl. N. Am. 4:107. 1836 [1838], nom., nota, sub Lyonsia Raf., nom. nov. Lyonia Nutt. (1818), non Ell. (1817) = Lyonia Nutt. (1818), nom. conserv. (Xolisma Raf., 1819).

\*HEMIDIS Raf. Herb. Raf. 57. 1833, sub Andromeda pauciflora Raf., nom., sphalm.=praec.

IPOSUES Raf. Aut. Bot. 186. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:95. 1921, nom.=Rhododendron Linn. obovata Raf. op. cit. 187, descr.; Pennell, l.c., nom. Asia=

Rhododendron sp. KALMIA Linn.

\*elliptica Raf. Aut. Bot. 87. 1840 sub K. lanceolata Raf., nom. nov. K. angustifolia Linn. North America.

\*ferruginea Raf. Aut. Bot. 86. 1840, descr. Alleghany Mountains = ? K. angustifolia Linn.

\*lanceolata Raf. Aut. Bot. 86. 1840, descr. Southern New Jersey=? K. polifolia Wangenh, latifolia Linn. North America.

var. acuminata Raf. Med. Fl. 2:17. 1830, nom.

alba Raf. 1.c., descr. arborea Raf. 1.c., nom. maculata Raf. 1.c., descr. ovatifolia Raf. 1.c., nom. ternata Raf. l.c., descr.

LEIOPHYLLUM Hedwig f.

\*thymifolium Raf. Am. Monthly Mag. Crit. Rev. 1:359. 1817, nom., nota (Ammyrsine buxifolia Pursh); Steud. Nomencl. 469. 1821. New Jersey=Leiophyllum buxifolium (Berg.) Ell.

\*LEIOPHYLTUM Raf. Am. Monthly Mag. Crit. Rev. 2:175.

1818, nom., nota, sphalm.=praec.

OXYCOCA Raf. Med. Fl. 2:48. 1830, descr.=Oxycoccus Adans. (1763)=Vaccinium Linn.

\*berberidea Raf. op. cit. 49, descr. New Jersey = ? Vaccinium

macrocarpon Michx.

berberidacea Raf. ex Jacks\*. Ind. Kew. 2:392. 1894=praec. \*erythrocarpa Raf. Med. Fl. 1.c., descr. (sphalm. Ozycoca) North Carolina=Oxycoccus erythrocarpus Pers.=Vaccinium erythrocarpon Michx.

\*hispidula Raf. 1.c., descr. North America=Oxycoccus hispidulus Pers.=Chiogenes hispidula (Linn.) Torr. &

macrocarpa Raf. op. cit. 48. North America=Oxycoccus macrocarpus Pers.=Vaccinium macrocarpon Ait.

var. coccinea Raf. op. cit. 50, descr.

globosa Raf. l.c., descr. maculata Raf. 1.c., descr. ovata Raf. 1.c., descr.

vulgaris Raf. op. cit. 48, descr. Northern Europe and America.

Vaccinium oxycoccus Linn.

#POLLOMIA Raf. Med. Fl. 2:49. 1830, nom. in syn. sub Glyciphylla Raf. (Lasierpa Torr.) ut subgen. Oxycoca Raf. = Chiogenes Salisb. (1817).

POLYCODIUM Raf. Am. Monthly Mag. Crit. Rev. 2:266. 1818, nom., gen. vel subgen. (Vaccinium sp.); op. cit. 4:189. 1819, nom.=Vaccinium Linn. subgen. Polycodium (Raf.) Sleumer (Picrococcus Nutt., 1843).

RHODODENDRON Linn.

\*kamtskatkense Raf. First Cat. Bot. Gard. Transylv. Univ. 23. 1829, nom.=R. kamtschaticum Pallas. Siberia.

maximum Linn.

var. albiflorum Raf. Aut. Bot. 86. 1840, nom. Alleghany Mountains=R. maximum Linn. forma album (Pursh) Fernald.

fulvum Raf. l.c., descr. Alleghany Mountains.

SHALLONIUM Raf. Am. Monthly Mag. Crit. Rev. 2:266. 1818, nom.; Jour. Phys. Chim. Hist. Nat. 89:260. 1819, nom.= Gaultheria Linn.

serrulatum Raf. Il.cc. nom. (Gaultheria shallon Pursh). Western North America.

STEMOTIS Raf. Sylva Tellur. 152. 1838, descr. = Rhododendron Linn.

alba Raf. op. cit. 153, descr. (Rhododendron album Ham.; Sweet, Brit. Fl. Gard. 5: t. 148. 1832; Rhododendron arboreum Sm. var. album Hook. Bot. Mag. 61: t. 3290. 1834). Nepal=Rhododendron arboreum Sm.

coccinea Raf. 1.c. descr. (Rhododendron arboreum Sm. Exot. Bot. 1: t. 6. 1804; Lindl. Bot. Reg. 11: t. 890. 1825). Himalaya Mountains=Rhododendron arboreum Sm.

rosea Raf. 1.c., descr. (Rhododendron arboreum Sm. var. roseum Lindl. Bot. Reg. 15: t. 1240. 1829). India=Rhododendron arboreum Sm.

VACCINIUM Linn.

\*distichum Raf. Med. Fl. 2:272. 1830, nom.; Herb. Raf.

54. 1833, nom. Oregon (Lewis & Clark).

\*dumoeum Raf. Med. Fl. 1.c., nom., sphalm.=Vaccinium dumosum Andr.=Gaylussacia dumosa (Andr.) Torr. & Gray. Eastern North America.

\*duonsum Raf. op. cit. 50, nom., sphalm.=praec. \*glaucum Raf. Atl. Jour. 1:148. 1832, descr. Florida.

\*gualtherioides Raf. Am. Monthly Mag. Crit. Rev. 1:335. 1816, descr., sphalm.=V. gaultherioides Bigelow=V. uliginosum Linn.

\*sempervirens Raf. Herb. Raf. 54. 1833, nom. Oregon (Lewis & Clark).

\*vitisidea Raf. Med. Fl. 2:272. 1840, nom.=Vaccinium vitis-

idaea Linn. Europe, North America.

XOLISMA Raf. Am. Monthly Mag. Crit. Rev. 4:193. 1819, nom. nov. Lyonia Nutt.; Jour. Phys. Chim. Hist. Nat. 89: 259. 1819, nom. (Lyonia Nutt.) = Lyonia Nutt. (1818), non Ell. (1817), nom. conserv. (Xolisma Raf., 1819).

# EPACRIDACEAE

WILSONIA Raf. Specch. Sci. 1:157. 1814, descr., non R. Br. (1810) = ? Epacris J. R. & G. Forst. (1776). linearis Raf. l.c., descr. "Polinesia o Isole del mare Indiano." <sup>27</sup>

## DIAPENSACEAE

\*ERITHRORHIZA Raf. Med. Repos. II. 5:353. 1808, nom., sphalm.=Erythrorhiza Michx. (1803)=Galax Linn.

GALAX Linn.

\*erythrorhiza Raf. Aut. Bot. 99. 1840, nom. (Galax aphylla Linn.; Erythrorhiza rotundifolia Michx.; Pyrola urceolata Poir.) North Carolina=Galax aphylla Linn.

## MYRSINACEAE

FIALARIS Raf. Sylva Tellur. 166. 1838, descr. = Rapanea Aubl. (1775)

umbellata Raf. 1.c., descr. (Myrsine urceolata R. Br.). Aus-

tralia=Rapanea urceolata (R. Br.) Mez.

GALIZIOLA Raf. Sylva Tellur. 167. 1838, descr. (Ardisia spp.)=Ardisia Sw. (1788), nom. conserv. (Kathoutheca Adans., 1763; ? Vedelia Adans., 1763; Icacorea Aubl., 1775; Bladhia Thunb., 1781).

HEURLINIA Raf. Sylva Tellur. 166. 1838, descr.=Rapanea Aublet (1775).

variabilis Raf. 1.c., nom. (Myrsine variabilis R. Br.). Aus-

tralia=Rapanea variabilis (R. Br.) Mez. MILNEA Raf. Sylva Tellur. 167. 1838, descr. =? Ardisia Sw.

(1788), nom. conserv., vide supra.

PATTARA Adans. (1763) = Embelia Burm. f. (1768), nom. conserv. (Ghesaembilla Adans., 1763; Pattara Adans., 1763).
acuta Raf. Sylva Tellur. 11. 1838, descr. (Basaal Rheede,
Hort. Malabar. 5:23. t. 12. 1685). Malabar, India = Embelia
basaal (Roem. & Schult.) A. DC.

basal Raf. l.c., descr. (Tsjeriam-cottam Rheede, Hort. Malabar. 5:21. t. 11. 1685). Malabar, India = Embelia tsjeriam-

cottam (Roem. & Schult.) A. DC.

## PRIMULACEAE

ARETIA Hall.=Androsace Linn.
alba Raf. Fl. Ludovic. 34. 1817, descr. (Aretia Rob. Voy.
Louis. 3:377. 1807). Louisiana.

#BASIPHIA Raf. Am. Monthly Mag. Crit. Rev. 4:191. 1819, nom., subgen. Lysimachia Linn.

†BORISSA Raf. Ann. Gén. Sci. Phys. 7:193. 1820, descr.; Steud. Nomencl. ed. 2, 1:217. 1840, nom. (Lysimachia linum-stellatum Linn.)=Asterolinon Hoffmgg. & Link (1820).

linum-stellatum Raf. ex Steud. Nomencl. ed. 2, 1:217. 1840 (Lysimachia linum-stellatum Linn.). Mediterranean region=

Asterolinon linum-stellatum (Linn.) Duby.

DODECATHEON Linn. angustifolium Raf. Am. Monthly Mag. Crit. Rev. 4:40. 1818, descr.; Spreng. Neue Entdeck. 1:145. 1820, descr.; Atl. Jour. 1:180. 1833, nom.; Herb. Raf. 28. 1833 sub D. longifolium Raf., nom. Indiana, Kentucky. cordatum Raf. Atl. Jour. 1:179. 1833, descr.; Herb. Raf. 27.

1833, descr. [North America]. Cult.

crenatum Raf. op. cit. 180, 28, descr. Illinois. cuneatum Raf. op. cit. 179, 28, descr. Alleghany Mountains of Maryland.

ellipticum Raf. op. cit. 179, 27, descr. Alleghany Mountains of Virginia.

flexuosum Raf. op. cit. 180, 28, descr. Missouri. longifolium Raf. op. cit. 180, 28, descr. Kentucky.
obovatum Raf. op. cit. 179, 27, descr. Virginia.
obtusum Raf. op. cit. 180, 32, descr. Arkansas.
ovatum Raf. op. cit. 179, 27, descr. Appalachian and Unaka

Mountains.

parviflorum Raf. op. cit. 180, 32, descr. Pennsylvania.

27 It is suspected that this actually may have come from Australia, and that the description, as to the 4-merous flowers (corolla 8-fid), the 4-celled ovary, etc., was based on erroneous observations. The type is not extant, so that there is no way of checking this point.

parvifolium Raf. op. cit. 179, 27, descr. Cumberland Moun-

\*rupestre Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom. Kentucky.

serratum Raf. Atl. Jour. 1:179. 1833, descr.; Herb. Raf. 27.

1833, descr. Illinois. (D. frenchii (Vasey) Rydb.?).
triflorum Raf. Atl. Jour. 1:180. 1833 et Herb. Raf. 27. 1833,
nom. alt. D. flexuosum Raf. Missouri=D. flexuosum Raf. undatum Raf. op. cit. 179, 28, descr. Alleghany Mountains. uniforum Raf. op. cit. 180, 28, descr. Alleghany Mountains. EVOTROCHIS Raf. Fl. Tellur. 2:76. 1836 [1837], descr.=

Primula Linn.

involucrata Raf. I.c., descr. (Primula verticillata sensu Hook. Bot. Mag. 55: t. 2842. 1828, non Forsk.). Arabia = Primula involucrata Sweet (1839), non Wall. 1828, nom., 1844, descr. (P. boveana Decne., 1844).

odorata Raf. l.c., descr. (Primula verticillata Forsk.). Arabia.

\*EXINIA Raf. Aut. Bot. 185. 1840, sub Meadia Mill., descr.=

Dodecatheon Linn.

\*pulchella Raf. l.c., descr. (Dodecatheon integrifolium sensu Hook. Bot. Mag. 64: t. 3622. 1837, non Michx.). Rocky Mountains = Dodecatheon pulchellum (Raf.) Merr. Jou Arnold Arb. 29:212. 1948. (D. pauciflorum Greene 1890).

LYSIMACHIA Linn.

capitellata Raf. Med. Repos. II. 5:354. 1808, nom. nov. L. thyrsiflora Linn.; Jour. Bot. (Paris) 2:174. 1809, nom.

(L. thyrsiflora Linn.). Eastern North America.

\*glauca Raf. Western Minerva 41. 1821, nom., iter Fox, Science II. 12:213. 1900. Kentucky.

\*mollis Raf. Herb. Raf. 79. 1833, nom. Alabama or Florida. sessilifolia Raf. Atl. Jour. 1:151. 1832, descr. Lake Erie or Lake Ontario.

MEADIA Mill.; Raf. Aut. Bot. 185. 1840, nom., nota=Dodecath-

eon Linn.

\*cordata Raf. l.c., descr. Siberia.

\*crenata Raf. op. cit. 186, descr. (Dodecatheon crenatum Raf.). Illinois.

\*cuneata Raf. op. cit. 185, nom. (Dodecatheon cuneatum Raf.). Alleghany Mountains.

\*dentata Raf. op. cit. 186, descr. Oregon.

\*elliptica Raf. op. cit. 185, nom. (Dodecatheon ellipticum Raf.). Alleghany Mountains, Ohio.

\*longifolia Raf. l.c., descr. (Dodecatheon longifolium Raf.). Kentucky, Illinois, Missouri.

var. cuneifolia Raf. op. cit. 186, nom.

elliptica Raf. l.c., nom.

\*obovata Raf. op. cit. 185, nom. (Dodecatheon obovatum Raf.). Virginia, Kentucky.

var. brevifolia Raf. 1.c., nom.

\*ovata Raf. 1.c., nom. (Dodecatheon ovatum Raf.). Appalachian and Unaka Mountains.

\*parvifolia Raf. l.c., nom. (Dodecatheon parvifolium Raf.). Cumberland (Wasioto) Mountains.

\*pendula Raf. op. cit. 186, descr. Siberia and Oregon.

\*polyanthes Raf. 1.c., descr. Siberia.
\*serrata Raf. op. cit. 185, nom. (Dodecatheon serratum Raf.).
Illinois. (D. frenchii (Vasey) Rydb.?).

\*triflora Raf. op. cit. 186, nom. (Dodecatheon triflorum Raf.). Missouri.

\*undata Raf. l.c., nom. (Dodecatheon undatum Raf.). Alleghany Mountains, Ohio.

var. cuneifolia Raf. 1.c., nom. oblongifolia Raf. I.c., nom.

\*uniflora Raf. I.c., nom. (Dodecatheon uniflorum Raf.). Alleghany Mountains.

PRIMULA Linn.

 bicolor Raf. Car. Nuov. Gen. Sp. Sicil, 78. t. 19 f. 3. 1810,
 descr.; Stat. Gen. Sicil. 28. 1810, nom.; Chloris Aetn. 10. 1815, nom. Sicily=Primula acaulis (Linn.) Hill.

SAMOLUS Linn.

\*acaulis Raf. Herb. Raf. 52, nom, 42, descr. 1833; Aut. Bot.

\*calycularis Raf. Herb. Raf. 42. 1833, descr. England, Europe=S. valerandi Linn.

\*floridanus Raf. op. cit. 41, descr. Carolina to Florida=S. floribundus H.B.K.

\*maritimus Raf. op. cit. 42, descr. Sea islands [eastern United States] = S. floribundus H.B.K.

\*multicaulis Raf. op. cit. 43, descr.; Aut. Bot. 10. 1840, nom. Southeastern Europe and Anatolia; Crete=S. valerandi Linn.

\*paniculatus Raf. Herb. Raf. 41. 1833, descr.; Aut. Bot. 10. 1840, nom. Louisiana to Kentucky; Florida to Texas.

parviflorus Raf. Am. Monthly Mag. Crit. Rev. 2:176. 1818. nom. nov. S. valerandi sensu Pursh; M'Murtrie Sketch. Louisv. 226. 1819, nom. Eastern North America; see House, Bull. N. Y. State Museum 254:558. 1924.

\*petiolatus Raf. Herb. Raf. 41. 1833, descr. C. Lake Erie and in Ohio=S. floribundus H.B.K. Canada, near

\*pratensis Raf. op. cit. 42, descr. Eastern United States= S. floribundus H.B.K.

\*rivularis Raf. 1.c., descr. Alleghany Mountains=S. floribundus H.B.K.

STEIRONEMA Raf. Ann. Gén. Sci. Phys. 7:193. 1820, descr.= Lysimachia Linn., sect. Steironema (Raf.) Klatt.

\*aquaticum Raf. First Cat. Bot. Gard. Transylv. Univ. 15.

1824. nom. Kentucky.

†ciliatum (Linn.) Raf. ex A. Gray, Proc. Am. Acad. II. 12:63. 1877 (Lysimachia ciliata Linn.). Eastern North America.

†heterophyllum (Michx.) Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom. (Lysimachia heterophylla Michx.). Eastern North America.

hybridum (Michx.) Raf. ex Jacks\*. Ind. Kew. 2:982. 1895 (Lysimachia hybrida Michx.). Eastern North America.

†longifolium Raf. ex A. Gray, Proc. Am. Acad. II. 12:63. 1877 (Lysimachia longifolia Pursh). Eastern North America=Steironema quadriflorum (Sims) Hitchc.

†revolutum Raf. ex A. Gray, 1.c. (Lysimachia revoluta Nutt.).
Eastern North America = Steironema quadriflorum (Sims) Hitchc.

†TRIDYNIA Raf. Ann. Gén. Sci. Phys. 7:192. 1820, descr.; Western Minerva 41. 1821, nom., iter. Fox, Science II. 12: 213. 1900; Atl. Jour. 1:151. 1832, nom., nota, ut gen. vel subgen.; Steud. Nomencl. ed. 2, 2:704. 1841=Lysimachia Linn.

\*glauca Raf. Ann. Gén. Sci. Phys. 1.c., descr.; Western Minerva, 1.c., nom., iter. Fox, Science, 1.c. Kentucky = Lysimachia glauca Raf.

TRIENTALIS Linn.

borealis Raf. Med. Repos. II. 5:354. 1808, nom. nov. T. europaea Linn.; Jour. Bot. (Paris) 2:174. 1809, nom. =T, europaea Linn.

### PLUMBAGINACEAE

MOLUBDA Raf. Sylva Tellur. 123. 1838, descr.=Plumbago

scandens Raf. 1.c., descr. (Plumbago scandens Linn.). Tropical America.

PLUMBAGO Linn.

\*floridana Raf. New Fl. N. Am. 4:14. 1836 [1838], descr. Florida=Plumbago floridana Nutt. (1822)=P. scandens Linn.

STATICE Linn.

caroliniana Walt. Southeastern United States = Limonium carolinianum (Walt.) Britton.

var. albiflora Raf. Med. Fl. 2:94. 1830, nom., Casket 1831:379. 1831, nom.; Sat. Eve. Post 10(540):[4]. 1831, nom.

cespitosa Raf. Il.cc., nom. longifolia Raf. Il.cc., nom. pumila Raf. 1l.cc., nom. ramosissima Raf. 1l.cc., nom.

## SAPOTACEAE

BUMELIA Swartz (1788), nom. conserv. (Robertia Scop., 1777). arachnoidea Raf. New Fl. N. Am. 3:28. 1836 [1838], descr.; Sylva Tellur. 36. 1838, nom.; Aut. Bot. 74. 1840, nom. Arkansas, Texas=Bumelia lanuginosa (Michx.) Pers.

denticulata Raf. New Fl. N. Am. 3:29. 1836 [1838], descr.; Sylva Tellur. 36. 1838, nom.; Aut. Bot. 74. 1840, nom., nota=Streblina denticulata Raf., fide Raf. op. cit. 75.

Florida. Ex descr.=Nyssa sp. (Nyssaceae).

rufa Raf. New Fl. N. Am. 3:29. 1836 [1838], descr., sub

Bumelia serrulata Raf.; Aut. Bot. 74. 1840, descr. Florida

=Bumelia lanuginosa (Michx.) Pers.

BURNELIA (continued).

serrulata Raf. Il.cc., descr., nom. Mountains of Alabama. var. sericea Raf. New Fl. N. Am. op. cit. 30, descr. Bumelia chrysophylloides sensu Raf. Fl. Ludovic. 53. 1817, non Pers. (Sideroxylon tenax sensu Rob. Voy. Lovic. 2:416, 1907) Voy. Louis. 3:416. 1807); Aut. Bot. 74. 1840, nom., nota. Louisiana. Alabama.

undulata Raf. op. cit. 28, descr.; Sylva Tellur. 36. 1838, nom.; Aut. Bot. 74. 1840, nom. Southern Florida, Cuba.

CHRYSOPHYLLUM Linn.

cainito Linn. var. rotundifolium Raf. New Fl. N. Am. 3:27.

1836 [1838], descr. Southern Florida.

ludovicianum Raf. Fl. Ludovic. 53. 1817, descr. (Chrysophyllum glabrum sensu Rob. Voy. Louis. 3:416. 1807);
New Fl. N. Am. l.c., descr., non Jacq., nec Juss. Louisiana,
Texas = Bumelia lanuginosa (Michx.) Pers.

DACTIMALA Raf. Sylva Tellur. 153. 1838, nom. alt. Guersentia

Raf. = Chrysophyllum Linn.

angustifolia Raf. ex Jacks\*. Ind. Kew. 1:708. 1893 (Chrysophyllum microcarpum Sw.). Santo Domingo.

microcarpa Raf. ex Jacks\*. 1.c. (Chrysophyllum microcarpum Sw.). Santo Domingo.

olivaeformis Raf. ex Jacks\*. 1.c. (Chrysophyllum oliviforme Lam.). West Indies = Chrysophyllum monopyrenum Sw. DECATELES Raf. Sylva Tellur. 35. 1838, descr.; Good Book

48. 1840, nom. = Bumelia Sw. (1788), nom. conserv. (Robertia Scop., 1777).

latifolia Raf. op. cit. 36, descr. (Sideroxylon decandrum Linn.). Southern New Jersey=Bumelia lycioides (Linn.) Pers.

lycioides Raf. l.c., descr.; Aut. Bot. 76. 1840, descr. (Sider-oxylon lycioides Linn.; Bumelia lycioides Willd.). Carolina to Florida=Bumelia lycioides (Linn.) Pers.

GUERSENTIA Raf. Sylva Tellur. 153. 1838, descr. = Chrysophyllum Linn.

angustifolia Raf. 1.c., nom. (Chrysophyllum angustifolium Lam.). Santo Domingo.

microcarpa Raf. 1.c., nom. (Chrysophyllum microcarpum Sw.). Santo Domingo=Chrysophyllum argenteum Jacq.

oliveformis Raf. l.c., descr. (Chrysophyllum oliviforme Linn.; C. monopyrenum Sw.; Hook. Bot. Mag. 61: t. 3303. 1834). West Indies

SCLEROCLADUS Raf. Sylva Tellur. 35. 1838, descr. = Bumelia Sw. (1788), nom. conserv. (Robertia Scop., 1777).

tenax Raf. 1.c., nom. (Sideroxylon tenax Linn.; Bumelia tenax Willd.; Chrysophyllum carolinense Jacq.). Southeastern United States=Bumelia tenax (Linn.) Willd.

\*SCLEROZUS Raf. Aut. Bot. 73. 1840, nom. nov. Sclerocladus Raf.; Good Book 48. 1840, nom. Bumelia Sw. (1788),

nom. conserv. (Robertia Scop., 1777).

\*tenax Raf. Aut. Bot. 1.c., descr. [Sclerocladus tenax Raf.].
Florida=Bumelia tenax (Linn.) Willd.

SPONDOGONA Raf. Sylva Tellur. 35. 1838, descr.=Dipholis

A. DC. (1844).

nitida Raf. 1.c., nom., nota (Bumelia pentagona Sw.). West Indies=Dipholis salicifolia (Linn.) A. DC.=Spondogona salicifolia (Linn.) House, Am. Midl. Nat. 7:131. 1921.

VERLANGIA Neck. (1790) = Argania Roem. & Schult. (1817),

nom. conserv. (Verlangia Neck., 1790).

argan Raf. Sylva Tellur. 34. 1838, descr. (Elaeodendron argan Retz.). Atlas Mountains, North Africa=Argania sideroxylon Roem. & Schult.

indica Raf. 1.c., descr. (Caromelli [Carou-moelli] Rheede, Hort. Malabar. 5:77. t. 39. 1685). India=Flacourtia in-dica (Burm. f.) Merr. (F. sepiaria Roxb.) (Flacourtiaceae). sicula Raf. 1.c., descr. (Rhamnus sicula Linn.). Sicily, Libya

=Argania sideroxylon Roem. & Schult.

XANTOLIS Raf. Sylva Tellur. 36. 1838, descr.=Sideroxylon Linn., sensu lat. (Planchonella Pierre, 1890).

tomentosa Raf. 1.c., descr. (Sideroxylon tomentosum Roxb. Pl. Coromandel 1:28. t. 28. 1795). India=Planchonella tomentosa (Roxb.) Pierre.

## **EBENACEAE**

\*CHLOROXYLON Raf. Med. Fl. 1:155. 1828, nom., iter. Man.

Med. Bot. 155. 1841, non Scop. (1777) (Type Diospyros chloroxylon Roxb.) = Diospyros Linn.

\*DIMIA Raf. Med. Fl. 1:155. 1828, nom. subnud., iter. Man, Med. Bot. 155. 1841 (Type Diospyros digyna Jacq.) = Diospyros Linn.

DIOSYROS Linn.

ciliata Raf. New Fl. N. Am. 3:25. 1836 [1838], descr. Florida=D. virginiana Linn.

virginiana Linn.

var. concolor Raf. Med. Fl. 1:155. 1828, descr., iter. Man. Med. Bot. 155. 1841. Eastern United States. macrocarpa Raf. ll.cc., descr. Southern United States. microcarpa Raf. 11.cc., descr. (D. pubescens Pursh). Virginia.

\*EBENUM Raf. Med. Fl. 1:155. 1828, descr., "subgen. or gen.," iter. Man. Med. Bot. 155. 1840=Diospyros Linn.
\*GONOPYROS Raf. Med. Fl. 1:155. 1828, descr., iter. Man.

Med. Bot. 155. 1841=Diospyros Linn.

MABOLA Raf. Sylva Tellur. 11. 1838, descr.=Diospyros Linn. edulis Raf. 1.c., descr. (Diospyros mabola Roxb.; Lindl. Bot. Reg. 14: t. 1139. 1828). Philippines=Diospyros discolor Willd.

PERSIMON Raf. Sylva Tellur. 164. 1838, descr. = Diospyros Linn.

virginiana Raf. ex Jacks\*. Ind. Kew. 2:474. 1894 (Diospyros virginiana Linn.). Eastern North America.

## STYRACEAE

ADNARIA Raf. Fl. Ludovic. 56. 1817, descr.; New Fl. N. Am. 1:65. 1836, nom., nota; op. cit. 4:95. 1836 [1838], nom.= Styrax Linn.

odorata Raf. Fl. Ludovic. l.c., descr. (Campanula 2, Rob. Voy. Louis. 3:422. 1807); Herb. Raf. 55. 1833, nom. Louisiana

=Styrax americana Lam.; see Camp. Castanea 6:82. 1941.
BENZOINA Raf. Sylva Tellur. 133. 1838, descr.=Styrax Linn.
vera Raf. 1.c., nom. (Styrax "benzoina L. auct." sphalm.; S. benzoin Dry.) = Styrax benzoin Dry. Malaysia.

STYRAX Linn.

\*benzoina Raf. Sylva Tellur. 133. 1838, nom. sub Benzoina vera Raf. = Styrax benzoin Dry. Malaysia.

# SYMPLOCACEAE

SYMPLOCOS Jacq.
\*vera Raf. Sylva Tellur. 163. 1838, nom. nov. Symplocos octopetala Sw. Jamaica.

# **OLEACEAE**

APILIA Raf. ex Jacks\*. Ind. Kew. 1:161. 1893, sphalm.= Aplilia Raf. (1838)=Fraxinus Linn.

laciniata Raf. ex Jacks\*. l.c.=Aplilia laciniata Raf. Europe= ? Fraxinus excelsior Linn.

macrophyla Raf. ex Jacks\*. l.c.=Aplilia macrophyla Raf. Europe=? praec.

pendula Raf. ex Jacks\*. l.c.=Aplilia pendula Raf. North America?=? praec.

APLILIA Raf. New Fl. N. Am. 3:93. 1836 [1838], Alsogr. Am. 31, nom. 39, descr., 1838; Good Book 46. 1840, nom = Fraxinus Linn.

laciniata Raf. New Fl. N. Am. 1.c., nom. (Fraxinus simplicifolia Willd.); Alsogr. Am. 39. 1838; nom. alt. Fraxinus laciniata Raf. (Fraxinus simplicifolia Willd.). Europe, Asia =? Fraxinus excelsior Linn.

macrophyla Raf. New Fl. 1.c. (Fraxinus simplicifolia Willd.);
Alsogr. Am. 1.c. nom. alt. Fraxinus macrophylla "Thouin." [Hoffmgg.] Europe (cult.)=? praec. \*pendula Raf. Alsogr. Am. 39. 1838, nom. alt. Fraxinus pendula Raf. North America?=praec.

BORYA Willd. (1805) non Labill. (1804)=Forestiera Poir.

(1810)\*cuneifolia Raf. Herb. Raf. 58. 1833, nom. Illinois.

CARPOXIS Raf. New Fl. N. Am. 3:89. 1836 [1838], descr. Sylva Tellur. 10. 1838, nom., nota; Good Book 46. 1840, nom.=Forestiera Poir. (1810).

inermis Raf. New Fl. N. Am. 3:92. 1836 [1838], descr. (Borya acuminata sensu Pursh). Carolina=Forestiera acuminata (Michx.) Poir. (Adelia acuminata Michx.).

nitida Raf. op. cit. 91, nom. alt. Forestiera nitida Raf. (Borya nitida Willd.). North America=Forestiera acuminata (Michx.) Poir.

prinoides Raf. op. cit. 92, nom. alt. Forestiera prinoides Raf. (Borya prinoides Willd.). North America.

retusa Raf. 1.c., nom. alt. Forestiera retusa Raf. (Borya retusa

Willd.). North America.

spinosa Raf. 1.c., descr. (Adelia acuminata Michx.; Borya acuminata Willd.; Bigelovia acuminata Sm.). Carolina, Georgia=Forestiera acuminata (Michx.) Poir. (Adelia acuminata Michx.).

CARTREMA Raf. Sylva Tellur. 184. 1838, nom. nov. Pausia Raf. Sylva Tellur. 9. 1838, non Pausia Raf. Flora Tellur. 4:105. 1836 [1838] = Osmanthus Lour. (1790) (Amarolea

Small, 1933).

americana Raf. ex Jacks\*. Ind. Kew. 1:445. 1893 (Olea americana Linn.). Southeastern United States=Osmanthus

americanus (Linn.) A. Gray (Amarolea americana Small).
\*odorata Raf. Aut. Bot. 16. 1840, nom. (Olea americana Linn.) [Pausia americana Raf.; Pausia odorata Raf.]. Southeastern United States = Osmanthus americanus (Linn.) A. Gray (Amarolea americana Small).

CHIONANTHUS Linn.

angustifolius Raf. New Fl. N. Am. 3:88. 1836 [1838], descr. (Chionanthus virginicus sensu Ell.?; C. virginicus Linn.? yar. angustifolius Ait.). Carolina, Florida=C. virginicus Linn.

var. cylindricus Raf. 1.c., descr. [Chionanthus virginicus Linn. var. cylindricus Ell.].

†heterophylus Raf. Herb. Raf. 57. 1833, nom.; New Fl. N. Am. 3:87. 1836 [1838], descr. (Chionanthus virginicus sensu Michx.); op. cit. 4:107. 1836 [1838], nom., nota. Appalachian and Wasioto Mountains=Chionanthus virginicus Linn.

longifolius Raf. op. cit. 3:88. 1836 [1838], descr. Louisiana, Texas=Chionanthus virginicus Linn.

\*maritimus Raf. Herb. Raf. 57. 1833, nom.; New Fl. N. Am. 3:86. 1836 [1838], descr. (Chionanthus virginicus Linn. var. maritimus Pursh); op. cit. 4:107. 1836 [1838], nom., nota. New Jersey to Florida=C. maritimus Sweet (1830)= C. virginicus Linn.

var. rhombifolius Raf. op. cit. 3:87, descr. Delaware.
†montanus Raf. Herb. Raf. 57. 1833, nom.; New Fl. N. Am.
3:87. 1836 [1838], descr. (Chionanthus virginicus Linn.
var. montanus Pursh). Alleghany and Appalachian Mountains. Virginia to Georgia—Chionanthus virginicus Linn. tains, Virginia to Georgia = Chionanthus virginicus Linn.

obovatus Raf. New Fl. N. Am. 1.c., descr. (Chionanthus domingensis Lam.?). Alabama; "probably also found in the Antilles and Florida"; quoad "Alabama" prob.=C. virginicus Linn.

ENAIMON Raf. Sylva Tellur. 9. 1838, descr. = Olea Linn.
undulata Raf. l.c., descr. (Olea undulata Jacq.; Lodd. Bot.
Cab. 4: t. 379. 1819; Hook. Bot. Mag. 58: t. 3089. 1831;
Olea laurifolia Lam.). South Africa = Olea laurifolia Lam.

FAULIA Raf. Fl. Tellur. 2:84. 1836 [1837], descr.=Ligustrum

odorata Raf. 1.c., descr. (Ligustrum spicatum Ham. var. nepalense Wall.). Nepal=Ligustrum indicum (Lour.) Merr. Proc. Am. Philos. Soc. 24(2):307. 1935 (L. nepalense D. Don).

verrucosa Raf. Fl. Tellur. 1.c., descr. (Ligustrum nepalense Wall., var. glabrum Hook. Bot. Mag. 56: t. 2921. 1829).

Nepal=Ligustrum lucidum Ait.

FORESTIERA Poir. cuneifolia Raf. New Fl. N. Am. 3:91. 1836 [1838], descr. Indiana.

disticha Raf. op. cit. 90, descr. (Borya distichophylla Nutt.). Eastern Tennessee=Buckleya distichophylla (Nutt.) Torr. glauca Raf. 1.c., nom. alt. F. verrucosa Raf.; Aut. Bot. 75. 1840, descr. Alabama.

heterophyla Raf. New Fl. N. Am. 3:90. 1836 [1838], nom. alt. F. disticha Raf. = Buckleya distichophylla (Nutt.) Torr. nitida Raf. op. cit. 91, descr. (Borya nitida Willd.). North

America.

prinoides Raf. op. cit. 92, descr. (Borya prinoides Willd.). North America.

retusa Raf. 1.c., descr. (Borya retusa Willd.). North America. verrucosa Raf. op. cit. 90, descr. Florida.

FRAXINUS Linn.

canaliculata Raf. Alsogr. Am. 35. 1838, descr. [North Americal.

cordata Raf. op. cit. 34, descr. Florida.

\*discolor Raf. Fl. Ludovic. 37. 1817, descr. (Frêne-gras Rob. Voy. Louis. 3:382. 1807); Herb. Raf. 55. 1833, nom.; New Fl. N. Am. 3:95. 1836 [1838], nom. Louisiana=? F. pensylvanica Marsh.

sylvanica Marsh.
glauca Raf. Alsogr. Am. 33. 1838, descr. (F. americana Linn.;
F. novae-angliae Mill.). Eastern United States.
grandifolia Raf. op. cit. 38, descr. Louisiana.
lacera Raf. Fl. Ludovic. 38. 1817, descr. (Frêne Rob. Voy.
Louis. 3:383. 1807); Herb. Raf. 55. 1833, nom.; Alsogr.
Am. 38. 1838, descr.; New Fl. N. Am. 3:95. 1836 [1838], nom. Louisiana.

\*laciniata Raf. Alsogr. Am. 39. 1838, descr. Europe.

lancifolia Raf. op. cit. 35, descr. Alleghany Mountains. †mannifera Raf. op. cit. 41, descr.; hort. ex Steud. Nomencl. ed. 2, 1:647. 1841. Southern Italy. media Raf. op. cit. 36, descr. (F. subpubescens Pers.).

North America.

mollis Raf. op. cit. 34, descr. Alabama. multifolia Raf. op. cit. 37, descr. [Eastern United States]. \*obliqua Raf. op. cit. 38, descr. Arkansas.

palustris Raf. op. cit. 35, descr. (F. platycarpa sensu Ell.). South Carolina.

\*pendula Raf. op. cit. 39, descr. [North America?].
pleurodes Raf. op. cit. 35, descr. (F. platycarpa Michx.).
North America=F. caroliniana Mill.; see Fernald & Schubert, Rhodora 50:188. 1948.

porosa Raf. op. cit. 34, descr. Delaware and Susquehanna

Rivers. \*quadrangularis Raf. Casket 1828:428. fig. 18. 1828, descr.; Am. Flor. fig. 29. 1832, nom., sphalm.=F. quadrangulata

Michx. North America.

repanda Raf. Alsogr. Am. 37. 1838, deser. [Eastern United] States].

reticulata Raf. op. cit. 34, descr. Virginia.
retusa Raf. 1.c., descr. New Jersey.
\*riparia Raf. op. cit. 35, nom. alt. F. porosa Raf.=F. porosa

teres Raf. op. cit. 36, descr. Alleghany Mountains.
undulata Raf. Fl. Ludovic. 38. 1817, descr. (Frêne 2, Rob. Voy. Louis. 3:382. 1807); First Cat. Bot. Gard. Transylv. Univ. 12. 1824; Alsogr. Am. 37. 1838, descr., nom.; New Fl. N. Am. 3:95. 1836 [1838], nom. Louisiana, Kentucky. var. latifolia Raf. Fl. Ludovic. 38. 1817, nom.

\*virens Raf. Alsogr. Am. 39. 1838, descr., in obs. sub. Fraxinus obliqua Raf. [Eastern United States].

GEISARINA Raf. Alsogr. Am. 5. 1838, descr.; Good Book 48. 1840, nom.=Forestiera Poir. (1810).

verrucosa Raf. op. cit. 6, descr. Arkansas and Missouri. Ex descr. = Forestiera pubescens Nutt. #GYMNOGONUS Raf. Casket 1828:438. 1828, nom., sect.

Fraxinus Linn.; Sat. Eve. Post 7(375):[4], 1828, nom.= Fraxinus Linn.

LEPTALIX Raf. New Fl. N. Am. 3:93. 1836 [1838], descr.; Alsogr. Am. 31. 1838, descr.; Sylva Tellur. 10. 1838, nom. in obs.; Good Book 46, 49. 1840, nom.=Fraxinus Linn. acuminata Raf. Alsogr. Am. 33. 1838, descr., nom. alt. Fraximus acuminata Lam. North America.

alba Raf. op. cit. 32, descr., nom. alt. Fraxinus alba Marsh. North America. = Fraxinus pennsylvanica Marsh.

atrovirens Raf. op. cit. 37, descr., nom. alt. Fraxinus atrovirens Desf. North America=Fraxinus excelsior Linn.

canaliculata Raf. op. cit. 35, descr., nom. alt. Fraxinus canaliculata Raf. North America.

caroliniana Raf. op. cit. 36, descr., nom. alt. Fraxinus caroliniana Mill. North America.

cinerea Raf. op. cit. 32, descr., nom. alt. Fraxinus cinerea Bosc. North America=Fraxinus pennsylvanica Marsh.

cordata Raf. op. cit. 34, descr., nom. alt. Fraxinus cordata Raf. Florida.

elliptica Raf. op. cit. 32, descr., nom. alt. Fraxinus elliptica Bosc. North America=Fraxinus pennsylvanica Marsh.

epiptera Raf. op. cit. 33, descr., nom. alt. Fraxinus epiptera Michx. Carolina=Fraxinus pennsylvanica Marsh.

expansa Raf. 1.c., descr., nom. alt. Fraxinus expansa Willd. North America.

fusca Raf. 1.c., descr., nom. alt. Fraxinus fusca Bosc. North America=Fraxinus pennsylvanica Marsh.

glauca Raf. 1.c., descr., nom. alt. Fraxinus americana Linn. North America.

grandifolia Raf. op. cit. 38, descr. (Fraxinus discolor sensu Raf. Fl. Ludovic. 37. 1817, non Muhl.). Louisiana.

LEPTALIX (continued).

juglandifolia Raf. op. cit. 36, descr., nom. alt. Fraxinus juglandifolia Lam. North America.
lacera Raf. op. cit. 38, descr., nom. alt. Fraxinus lacera Raf.

Louisiana.

lancifolia Raf. op. cit. 35, descr., nom. alt. Fraxinus lancifolia Raf. Alleghany Mountains.

longifolia Raf. op. cit. 32; descr., nom. alt. Fraxinus longi-folia Bosc. North America=Fraxinus pennsylvanica Marsh.

media Raf. op. cit. 36, descr., nom. alt. Fraxinus media Raf. (F. subpubescens Pers.). North America. mixta Raf. op. cit. 32, descr., nom. alt. Fraxinus mixta Bosc.

North America=Fraxinus rotundifolia Michx.

mollis Raf. op. cit. 34, descr., nom. alt. Fraxinus mollis Raf. Alabama.

multifolia Raf. op. cit. 37, descr., nom. alt. Fraxinus multifolia Raf. North America.

nana Raf. op. cit. 33, descr., nom. alt. Fraxinus nana Pers. North America=Fraxinus excelsior Linn.

nigra Raf. 1.c., descr., nom. alt. Fraxinus nigra Bosc. North America=Fraxinus pennsylvanica Marsh. obliqua Raf. op. cit. 38, descr., nom. alt. Fraxinus obliqua

Raf. Arkansas.

ovata Raf. op. cit. 32, descr., nom. alt. Fraxinus ovata Bosc. North America=Fraxinus pennsylvanica Marsh.

pallida Raf. op. cit. 33, descr., nom. alt. Fraxinus pallida Bosc. North America=Fraxinus caroliniana Mill.

palustris Raf. op. cit. 35, descr., nom. alt. Fraxinus palustris Raf. (Fraxinus platycarpa sensu Ell.). Carolina

pannosa Raf. op. cit. 34, descr., nom. alt. Fraxinus pannosa Vent. North America.

platycarpa Raf. op. cit. 35, descr. (sphalm. "platocarpa") nom. alt. Fraxinus platycarpa Michx. North America= Fraxinus caroliniana Mill.

pleurodes Raf. 1.c., descr., nom. alt. Fraxinus pleurodes Raf. (Fraxinus platycarpa sensu Willd., Pursh). North America. porosa Raf. op. cit. 34, descr., nom. alt. Fraxinus porosa Raf. Delaware and Susquehanna Rivers.

pubescens Raf. op. cit. 36, descr. (Fraxinus pubescens Lam.).

North America.

pulverulenta Raf. op. cit. 32, descr. (Fraxinus pulverulenta Bosc). North America.

quadrangulata Raf. op. cit. 37, descr. (Fraxinus quadrangulata Michx.). North America.

repanda Raf. op. cit. 37, descr., nom. alt. Fraxinus repanda Raf. North America.

reticulata Raf. op. cit. 34, descr., nom. alt. Fraxinus reticulata Raf. Virginia.

retusa Raf. I.c., descr., nom. alt. Fraxinus retusa Raf. New

Jersey. richardi Raf. op. cit. 32, descr. (Fraxinus richardi Bosc). North America=Fraxinus pennsylvanica Marsh.

rubicunda Raf. 1.c., descr. (Fraxinus rubicunda Bosc). North America = praec.

rufa Raf. op. cit. 33, descr. (Fraxinus rufa Bosc). North America = praec.

teres Raf. op. cit. 36, descr. nom. alt. Fraxinus teres Raf. Alleghany Mountains.

undulata Raf. op. cit. 37, descr. (Fraxinus undulata Raf.).

viridis Raf. op. cit. 32, descr. (Fraxinus viridis Bosc). North America=Fraxinus americana Linn. var. juglandifolia (Lam.) D. J. Browne.

\*LILACA Raf. Med. Fl. 2:238. 1830, nom.=Lilac Adans. (1763)=Syringa Linn.

\*vulgaris Raf. I.c., nom.=Syringa vulgaris Linn. Southeastern Europe.

MANNAPHORUS Raf. Am. Monthly Mag. Crit. Rev. 2:175. 1818, nom. nov. Ornus Neck.=Fraxinus Linn.

#MANNIFLUA Raf. Casket 1828:428. 1828, nom., sect. Fraxinus Linn.; Sat. Eve. Post 7(375):[4]. 1828, nom.=praec.

NESTEGIS Raf. Sylva Tellur. 10. 1838, descr. = Olea Linn. elliptica Raf. 1.c., descr. (Olea [apetala] Vahl). New Zea-

\*NOTELEA Raf. Sylva Tellur. 10. 1838, descr. = Notelaea Vent.

NUDILUS Raf. Atl. Jour. 1:176. 1833, descr.; Herb. Raf. 20. 1833, descr.; New Fl. N. Am. 1:62. 1836, nom., nota; op. cit. 3:90. 1836 [1838], descr.; Good Book 46. 1840, nom.= Forestiera Poir. (1810).

paradoxus Raf. Atl. Jour. 1:176. 1833, descr.; Herb. Raf. 20. 1833, descr.; New Fl. N. Am. 3:92. 1836 [1838], descr. Tennessee to Texas.

OLEA Linn.

angustifolia Raf. Sylva Tellur. 9. 1838, descr. Southern

Europe. Ex descr. = Olea europaea Linn. bifera Raf. op. cit. 8, descr. Southern Italy. Ex descr. = Olea europaea Linn.

brevifolia Raf. op. cit. 9, descr. Southern Europe. Ex descr.=

Olea europaea Linn. cayana Raf. l.c., descr. Southern Europe. Ex descr.=Olea europaea Linn.

europea Linn. var. semperflorens Raf. op. cit. 8, deser. (Olea cajetana Petagni). Italy=Olea europaea Linn.

verrucosa Raf. 1.c., descr. Southern Europe. Ex descr.= Olea europaea Linn.

ORNANTHES Raf. New Fl. N. Am. 3:93. 1836 [1838], descr.; Alsogr. Am. 39. 1838, descr.; Sylva Tellur. 10. 1838, nom. nov. Ornus Pers.; Good Book 46, 49. 1840, nom.= Fraxinus Linn.

americana Raf. New Fl. N. Am. 3:93. 1836 [1838], nom. [Fraxinus americana Linn.]. Eastern North America.

florida Raf. Alsogr. Am. 40. 1838, descr. (Fraxinus ornus sensu Sm.). Greece, Germany.

lutea Raf. l.c., descr. (Fraxinus americana auctt.). Alleghany Mountains.

mannifera Raf. New Fl. N. Am. 3:93. 1836 [1838], nom. [Fraxinus ornus Linn. ?]. Mediterranean region ?=Fraxinus ornus Linn.

parviflora Raf. Alsogr. Am. 40. 1838, descr. Apennine Mountains. Italy.

rotundifolia Raf. 1.c., descr. (Fraxinus rotundifolia Mill.);

#ORNANTHUS Raf. Casket 1828;428. 1828, nom., sect. Fraxinus Linn.; Sat. Eve. Post 7(375):[4]. 1828, nom., sect. Fraxinus Linn.; Sat. Eve. Post 7(375):[4]. 1828, nom. = praec.

PAUSIA Raf. Sylva Tellur. 9. 1838, descr., non Pausia Raf. Fl.
Tellur. 4:105. 1836 [1838] = Cartrema Raf. (1838) = Osmanthus Lour. (1790) (Amarolea Small (1933).

americana Raf. 1.c., nom., nota (Olea americana Linn.)=Osmanthus americanus (Linn.) A. Gray (Amarolea americana Small, 1933).

#PLATONEUS Raf. Alsogr. Am. 35. 1838, nom., subgen.

Fraxinus Linn. (Type Fraxinus porosa Raf.).

POGENDA Raf. Sylva Tellur. 10. 1838, descr.=Olea Linn.

cernua Raf. 1.c., descr. (Olea cernua Vahl). Madagascar= Olea obtusifolia Lam.

POSTUERA Raf. Sylva Tellur. 10. 1838, descr.=Notelaea Vent. (1803).

longifolia Raf. 1.c., descr. (Notelaea longifolia Vent.). Australia.

SAMARPSES Raf. New Fl. N. Am. 3:93. 1836 [1838], descr.; Alsogr. Am. 39. 1838, descr.; Sylva Tellur. 10. 1838, nom.; Good Book 46. 1840, nom.=Fraxinus Linn.
triptera Raf. New Fl. et Alsogr. Am. Il.cc., descr. (Fraxinus triptera Nutt.). Carolina=Fraxinus caroliniana Mill.

TETRAPILUS Lour.=Olea Linn.
axillaris Raf. Sylva Tellur. 138. 1838, descr. [Tetrapilus brachiatus Lour.]. Indo-China (Annam)=Olea brachiatus

(Lour.) Merr.; see Merrill, Trans. Am. Philos. Soc. II. 24(2):307. 1935.

\*THUINIA Raf. Sylva Tellur. 137. 1838, nom. sub Linociera Sw.=Thouinia Linn. f. (1781)=Linociera Sw. (1791), nom. conserv. (Mayepea Aubl., 1775; Thouinia Linn. f., 1781; Freyeria Scop., 1777; Ceranthus Schreb., 1789).
\*ligustrina Raf. l.c., nom.=Thouinia ligustrina Sw.=Linociera ligustrina Sw. West Indies.

### SALVADORACEAE

DOBERA "Rafin. Fl. Tellur. III. 15. (1836)" ex Ind. Kew. 1:

783. 1893 est Dobera Juss. (1789).
ITUTERION Raf. Sylva Tellur. 86. 1838, descr.=Salvadora Linn.

arborea Raf. l.c., descr. (Cissus arborea Forsk.). Arabia= Salvadora persica Linn.

# LOGANIACEAE

POLYPREMUM Linn.

\*laxum Raf. Aut. Bot. 17, 1840, descr. Arkansas, Texas= P. procumbens Linn.

\*squarrosum Raf. 1.c., descr., nom. nov.. P. procumbens Linn. Carolina, Florida.

SEMNOS Raf. Sylva Tellur. 161. 1838, descr.=Chilianthus Burch. (1822).

paniculata Raf. I.c., nom. (Callicarpa paniculata Lam.). South Africa = Chilianthus arboreus (Linn. f.) A. DC.

SPIGELIA Linn.

marilandica Linn.; Raf. Med. Fl. 2:89, 1830. Eastern North America.

var. albiflora Raf. op. cit. 90, nom.; Casket 1831:573. 1831, nom.; Sat. Eve. Post 10(541):[4]. 1831, nom. angustifolia Raf. 11.cc., descr. distachya Raf. Il.cc., nom. pallida Raf. 11.cc., descr. parviflora Raf. 11.cc., nom.

#### GENTIANACEAE

ALOITIS Raf. Fl. Tellur. 3:21. 1836 [1837], descr. = Gentiana

pubera Raf. Il.cc., descr.

Linn. (Gentianella Moench, 1794).

anceps Raf. op. cit. 22, descr. (Gentiana amarelloides Michx.). Kentucky=Gentiana quinquefolia Linn. (Gentianella quinquefolia Small.).

parviflora Raf. op. cit. 21, descr. (Gentiana amarella sensu Ell.). Kentucky, Tennessee, Carolina = Gentiana quinque-

folia Linn. (Gentianella quinquefolia Small). quinqueflora Raf. op. cit. 22, descr. (Gentiana quinqueflora Hill.; Hook. Bot. Mag. 63: t. 3496. 1836). North America = Gentiana quinquefolia Linn. (Gentianella quinquefolia Small).

AMARELLA Gilib. (1791); Raf. Fl. Tellur. 3:20. 1836 [1837], descr. (Hippion Schmidt, 1793) = Gentiana Linn.

acuta Raf. op. cit. 21, descr. (Gentiana acuta Michx.). Canada to Carolina=Gentiana amarella Linn.

brevicaulis Raf. 1.c., descr. Oregon.

gracilis Raf. l.c., descr. Siberia. rugosa Raf. l.c., descr. Oregon.

vulgaris Raf. op. cit. 20, descr. (Gentiana amarella Linn.). Europe.

var. brevifolia Raf. l.c., descr. fastigiata Raf. op. cit. 21, descr. ramosa Raf. op. cit. 20, descr.

simplex Raf. l.c., descr.

ANTHOPOGON Neck.; Raf. Fl. Tellur. 3:25. 1836 [1837], descr.28 (Eublephis Raf.; Crossopetalon Beck), non Nutt.

(1818) = Gentiana Linn. †albescens Raf. New Fl. N. Am. 4:91. 1836 [1838], descr. Louisiana.

barbatum Raf. ex Jacks\*. Ind. Kew. 1:149. 1893 (Gentiana barbata Froel.). Northern regions.
†brevifolium Raf. New Fl. 1.c., descr. Alleghany Mountains

of Pennsylvania.

ciliatum Raf. ex Jacks\*. l.c. (Gentiana ciliata Linn.). Europe. crinitum Raf. New Fl. l.c., descr. [Gentiana crinita Froel.]. sub A. brevifolium Raf. Eastern North America=Gentiana crinita Froel.

detonsum Raf. ex Jacks\*. 1.c. (Gentiana detonsa Rottb.).

Northern regions.

†incarnatum Raf. New Fl. N. Am. 4:90. 1836 [1838], descr. (Gentiana purpurea sensu Muhl.). Alleghany Mountains of Pennsylvania.

virgatum Raf. Fl. Tellur. 3:25, 1836 [1837], descr. Canada

and the Alleghany Mountains.

BARTONIA Muhl. ex Willd. (1801); Raf. Am. Monthly Mag. Crit. Rev. 3:100. 1818, nom., nota (Centaurella Michx. 1803, non Delarb. 1800); Jour. Phys. Chim. Hist. Nat. 89:257. 1819, nom., nota (Centaurella Michx. 1803; Centaurium Pers. 1805; Andrewsia Spreng. 1817), nom. conserv. (Agina Neel. 1709) Neck., 1790)

pubescens Raf. Med. Repos. II. 5:353, 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. Central Atlantic United States.

uniflora Raf. Il.cc., nom. Central Atlantic United States.
verna (Michx.) Raf. ex Barton, Fl. Virg. 51. 1812 (Centaurella verna Michx.); Muhl. Cat. 16. 1813, nom.; Muhl.

ex A. Gray in Chapm. Fl. S. U. St. 357. 1860; Pennell, Bartonia 9:28. 1926. Eastern North America.

BILAMISTA Raf. New Fl. N. Am. 4:92. 1836 [1838], descr.; Good Book 46. 1840, nom.=Gentiana Linn.

grandiflora Raf. op. cit. 93, descr. (Gentiana grandiflora herb. Collins); Aut. Bot. 55. 1840, nom., nota. Louisiana, Arkansas, Texas.

CALIXNOS Raf. Fl. Tellur. 4:82. 1836 [1838], descr.=Crawfurdia Wall. (1826).

trinervius Raf. 1.c., descr. (Convolvulus trinervis Thunb.). Japan = Crawfurdia japonica Sieb. & Zucc. (C. trinervis Makino 1902, non D. Dietr. 1840).

CHIOPHILA Raf. Fl. Tellur. 3:23. 1836 [1837], descr.=Gentiana Linn.

nivalis Raf. 1.c., nom. [Gentiana nivalis Linn.]. Boreal and Arctic regions.

\*CHIRONEA Raf. Med. Repos. II. 5:359. 1808, nom., sphalm.;

CHIRONIA Linn.

amoena Raf. Med. Repos. II. 5:359. 1808, descr. (Chironea); Jour. Bot. (Paris) 1:224. 1809, descr.; Am. Monthly Mag. Crit. Rev. 2:174. 1818, nom., nota (amaena) (Sabatia stellaris Pursh); Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom. (Sabatia stellaris Pursh). New Jersey, Delaware, Maryland=Sabatia stellaris Pursh; see Fernald, Rhodora **43**:629. 1941.

\*CHIRVNIA Raf. Fl. Tellur. 3:23. 1836 [1837], nom. sub Gonipa Raf., sphalm. = praec.

\*CHLORITA Raf. Fl. Tellur. 1:84. 1836 [1837], nom. nov. Chlora Adans. (1763).

\*CHLORYTA Raf. Princ. Somiol. 26, 29. 1814, nom. nov. Chlora Adans. (1763)

CHONDROPSIS Raf. Fl. Tellur. 3:29. 1836 [1837], descr.= Exacum Linn.

trinervis Raf. 1.c., descr. (Chironia trinervia Linn.). Ceylon= Exacum trinerve (Linn.) Druce (E. zeylanicum Roxb.). CICENDIA Adans.; Raf. Fl. Tellur. 3:26. 1836 [1837], descr.=

Gentiana Linn. campestris Raf. ex Jacks\*. Ind. Kew. 1:533. 1893 (Gentiana campestris Linn.). Europe.

glacialis Raf. ex Jacks\*. l.c. (Gentiana glacialis Thom.). Europe=G. tenella Rottb.

tenella Raf. ex Jacks\*. l.c. (Gentiana tenella Rottb.). Boreal and Arctic regions.

CIMINALIS Raf. Fl. Tellur. 3:19. 1836 [1837], descr., non Adans. (1763) = Leiphaimos Cham. & Schlecht. (1831).

alpina Raf. l.c., nom. (Gentiana aphylla Jacq., var.). Tropical America = L. aphylla (Jacq.) Gilg.

angustifolia Raf. l.c., nom. (Gentiana aphylla Jacq., var.). Tropical America=L. aphylla (Jacq.) Gilg.

grandiflora Raf. l.c., nom. (Gentiana aphylla Jacq.). Tropical America=L. aphylla (Jacq.) Gilg (Voyria uniflora Lam., V. aphylla Pers.).

CUTLERA Raf. Am. Monthly Mag. Crit. Rev. 2:176. 1818, nom., nota (Gentiana catesbaei Walt.); Fl. Tellur. 3:22. 1836 [1837], nom., ut subgen. Xolemia Raf. = Gentiana Linn.

CUTTERA Raf. Med. Repos. II. 5:352. 1808, nom.; Jour. Bot.

(Paris) 28:170. 1809, nom.=Gentiana Linn.
catesbei Raf. ex Jacks\*. Ind. Kew. 2:674. 1893 (Gentiana catesbaei Walt.). Eastern North America=G. saponaria Linn.

ochroleuca Raf. Med. Repos. et. Jour. Bot. (Paris), 11.cc., nom. (Gentiana ochroleuca Sims); A. Gray, Am. Jour. Sci. 40:227. 1841, nom., Eastern North America.

saponaria Raf. Il.cc., nom. (Gentiana saponaria Linn.); A. Gray, I.c., nom. Eastern North America.

DASISTEPHA Raf. Fl. Tellur. 3:19. 1836 [1838], descr.= Gentiana Linn.

asclepiadea Raf. 1.c., nom. (Gentiana asclepiadea Linn.). Europe.

cespitosa Raf. l.c., nom.; op. cit. 28, descr. (Gentiana caespitosa Grah.; G. glauca Pallas). Siberia to Western North

America. DENCKEA Raf. Med. Repos. II. 5:352. 1808, nom.; Jour. Bot. (Paris) 2:170. 1809, nom.=Gentiana Linn.

crinita Raf. Il.cc., nom. (Gentiana crinita Froel.); A. Gray, Am. Jour. Sci. 40:228. 1841, nom. North America.

DICARDIOTIS Raf. Fl. Tellur. 3:31. 1836 [1837], nom. provis. (Gentiana auriculata Pallas) = Gentiana Linn.

<sup>&</sup>lt;sup>28</sup> Among the binomials listed below, A. albescens, brevifolium, and incarnatum are listed in Index Kewensis 1:149-150. 1893, by error, under Anthopogon Nutt. (1818), a genus of the Gramineae = Gymnopogon Beauv.

DIPLOMA Raf. Fl. Tellur. 3:19. 1836 [1837], descr.=Gentiana Linn.

altaica Raf. 1.c., nom. (Gentiana altaica Laxm.). Siberia. angustifolia Raf. 1.c., nom. sphalm. "ungustifolia" (Gentiana angustifolia Michx.). North America.

hudsonica Raf. op. cit. 27, descr. (Gentiana pneumonanthe sensu Michx.). Canada = Gentiana linearis Froel.

pyrenaica Raf. op. cit. 19, nom. (Gentiana pyrenaica Linn.).

Europe, Asia Minor.
tenuifolia Raf. op. cit. 27, descr. Florida=Dasystephania
tenuifolia Pennell=Gentiana tenuifolia Fernald, 1939, non Petrie, 1913=Gentiana pennelliana Fernald, Rhodora 42: 198. 1940.

**DISINSTYLIS** Raf. Fl. Tellur. 3:31. 1836 [1837], descr., nom.

nov. Chlora Adans. (1763).

italica Raf. 1.c., descr. (Chlora imperfoliata Linn. f.). Europe. \*DITOMAGA Raf. Act. Soc. Linn. Bordeaux 6:267. 1834, nom., nota, iter. Merr. Proc. Am. Philos. Soc. 86:88. 1942= Irlbachia Mart. (1827).

\*nemorosa Raf. 1.c., nom. (Claytonia nemorosa Willd.), iter. Merr. l.c. Colombia = Irlbachia nemorosa (Willd.) Merr. l.c. (I. bonplandiana Fenzl).

#EUBLEPHIS Raf. Med. Fl. 1:208. 1828, descr., iter. Man. Med. Bot. 208. 1841, subgen. Gentiana (Type Gentiana crinita Froel.); Casket 1830:414. 1830, nom.; Sat. Eve. Post 9(482):[1]. 1830, nom.; Fl. Tellur. 3:25. 1836 [1837], nom. sub Anthopogon Neck. = Gentiana Linn.

EUPODIA Raf. Fl. Tellur. 3:29. 1836 [1837], descr.=Chironia

Linn.

purpurea Raf. l.c., descr. (Chironia peduncularis Lindl. Bot. Reg. 21: t. 1803. 1835). South Africa.

EVALTHE Raf. Fl. Tellur. 3:77. 1836 [1837], descr.=Chironia Linn.

jasminoides Raf. 1.c., descr. (Chironia jasminoides sensu Ker-Gawl. Bot. Reg. 3: t. 197. 1817). South Africa= Chironia tabularis Page.

EXACUM Linn.

\*pusillum Raf. Fl. Tellur. 3:49. 1836 [1837], nom. sub Monosteria Raf. [Pladeria pusilla Roxb.]. India=Hoppea dichotoma Willd.

FRASERA Walter.

verticillata Raf. Med. Fl. 1:196. f. 39. 1828, descr., iter. Man. Med. Bot. 196, f. 39. 1841 (Swertia difformis Linn.; Frasera carolinensis Walt.; F. walteri Michx.)=Swertia carolinensis (Walt.) O. Kuntze; p.p.=Sabatia difformis (Linn.) Druce.

var. angustifolia Raf. op. cit. 199, iter. Man. Med. Bot.

199. 1841, nom. oppositifolia Raf. 11.cc., nom. pauciflora Raf. 11.cc., nom.

undulata Raf. 11.cc., nom.

GENTIANA Linn.

axillaris Raf. Med. Fl. 1:213. 1828, descr., iter. Man. Med. Bot. 213. 1841. Western Kentucky

\*azurea Raf. Western Minerva 41. 1821, nom., iter. Fox, Sci. II. 12:213. 1900 [Kentucky].

\*brevicaulis Raf. Herb. Raf. 51. 1833, nom. Rocky Mountains or Oregon.

\*breviflora Raf. op. cit. 67, nom. Cumberland Mountains. clausa Raf. Med. Fl. 1:210. 1828, descr., iter. Man. Med. Bot. 210. 1841. Vermont, New York; see Fernald, Rhodora 19:149. 1917.

collinsiana Raf. op. cit. 213, descr. Western Kentucky, Illinois, Missouri.

\*corinita Raf. Casket 1828:475. 1828, nom.; Sat. Eve. Post 7(379):[4]. 1828, nom., sphalm.=G. crinita Froel. Eastern North America.

\*ellioteana Raf. First Cat. Bot. Gard. Transylv. Univ. 14.

1824, nom. Western Kentucky. elliottea Raf. Med. Fl. 1:213. 1828, descr. Western Ken-

\*glauca Raf. Western Minerva 41. 1821, nom., iter. Fox, Science II. 12:213, 1900; Herb. Raf. 67. 1833, nom. Cumberland Mountains.

\*gracilis Raf. Med. Fl. 1:213. 1828, descr., iter. Man. Med. Bot. 213. 1841. Western Kentucky.

\*grisea Raf. First Cat. Bot. Gard. Transylv. Univ. 14. 1824,

nom. Kentucky. heterophylla Raf. Med. Fl. 1:211. 1828, descr., iter. Man. Med. Bot. 211. 1841; Casket 1828:475. 1828, nom.; Sat. Eve. Post 7(379):[4]. 1828, nom. Virginia, Kentucky, Tennessee.

hybrida Raf. Med. Repos. II. 5:353. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. Eastern United States.

†leptina Raf. Précis Découv. Somiol. 38. 1814, descr.; Jour. Bot. (Desv.) 4:270. 1814, descr.; Fl. Tellur. 3:25. 1836

[1837], nom. sub Thylacitis leptina Raf.; Steud. Nomencl. 362. 1821, nom. Italy, near Livorno.
\*loomesi Torr. ex Raf. Fl. Tellur. 3:28. 1836 [1837], nom. in syn. sub Xolemia trachiloma Raf. North Carolina.
\*mitcheliana Raf. First Cat. Bot. Gard. Transylv. Univ. 14.

1824, nom. Kentucky. \*officinalis Raf. Fl. Tellur. 3:18. 1836 [1837], nom. nov. G. lutea Linn. Europe.

\*palustris Raf. Herb. Raf. 70. 1833, nom. Alabama or Florida. \*pratensis Raf. First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom. Kentucky.

\*prostrata Raf. l.c., nom. Kentucky.

\*pseudopneum Rat. Fl. Tellur. 3:20. 1836 [1837], nom. (G. pseudo-pneumonanthe Roem. & Schult.). Eastern North

'America=G. linearis Froel. rigida Raf. Med. Fl. 1:212. 1828, descr., iter. Man. Med. Bot. 212. 1841. Kentucky, Tennessee. \*rossica Raf. Fl. Tellur. 3:19. 1836 [1837], nom. nov. Gen-

tiana septemfida Pallas. Northern Asia.

tiana septempida Pallas. Northern Asia.
serpentaria Raf. Ann. Nat. Ann. Synop. 13. 1820, descr.;
First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom.; Med.
Fl. 1:211. 1828, descr., iter. Man. Med. Bot. 211. 1841.
Indiana, Illinois, Kentucky.
†shortiana Raf. First Cat. Bot. Gard. Transylv. Univ. 14.
1824, nom.; Med. Fl. 1:211. 1828, descr., iter. Man. Med.
Bot. 211. 1841, descr. Kentucky, Tennessee, Illinois.

var. biflora Raf. Med. Fl., op. cit. 212, iter. Man. Med. Bot. 212, descr.

†torreyana Raf. First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom., Med. Fl. Man. Med. Bot. 1l.cc., descr. Kentucky, Tennessee, Illinois.
\*trachiloma Raf. Life of Travels 144. 1836, nom. New Jersey.

GONIPIA Raf. Fl. Tellur. 3:23. 1836 [1837], nom., nota (Type Gentiana centaurium Linn.) = Erythraea Renealm. (1796). bicolor Raf. op. cit. 24, descr. Lake Ontario.
linearis Raf. l.c., descr. (Gentiana centaurium Linn.). Northern Europe—Erythraea centaurium (Linn.) Pers. paucifolia Raf. l.c., descr. Sicily. pulchella Raf. op. cit. 24, descr. Florida.

pumila Raf. 1.c., descr. Florida.

rotundifolia Raf. 1.c., descr. (Gentiana centaurium Linn.).

Northern Europe = Erythraea centaurium (Linn.) Pers.

sicula Raf. op. cit. 23, descr. Sicily.

tenuiflora Raf. op. cit. 24, descr. Louisiana, Texas.

HETEROCLITA Raf. Fl. Tellur. 3:27. 1836 [1837], descr.= Canscora Lam. (1785).

dichotoma Raf. 1.c., descr. (Gentiana heteroclita Linn.; Exacum heteroclitum Willd.). India=Canscora heteroclita (Linn.) Gilg.

LEIMANISA Raf. New Fl. N. Am. 4:93. 1836 [1838], descr. sub Bilamista Raf. = Gentiana Linn.

pratensis Raf. ex Jacks\*. Ind. Kew. 2:49. 1894 (Gentiana pratensis Froel.). Eurasia=Gentiana anaetla Linn.

LEPINEMA Raf. Fl. Tellur. 3:26. 1836 [1837], descr.=Enicotema Pluma (1936)

costema Blume (1826), nom. conserv. (Hippion Spreng., 1825).

verticilata Raf. Fl. Tellur. 3:27. 1836 [1837], descr. (Gentiona verticillata Linn.; Exacum verticillatum Willd.). Florida, West Indies=Enicostema verticillatum (Linn.) Engl. (E. littorale Blume).

LISIANTHUS Linn. luteus Raf. Atl. Jour. 1:146. 1832, nom. (L. glaucifolius Torr. Ann. Lyc. Nat. Hist. N. Y. 2:219. 1827). Canadian

River=Eustoma russellianum (Linn.) Griseb. MENYANTHES Linn.

†latifolia Raf. Herb. Raf. 50. 1833, nom.; New Fl. N. Am. 2:20. 1836 [1837], descr. Oregon=M. trifoliata Linn.

†tridentata Raf. II.cc., nom., descr. Oregon=M. trifoliata

verna Raf. Med. Fl. 2:33. f. 63. 1830, descr. (Menyanthes trifoliata auct. Am.; M. trifoliata Linn. var. minor Michx.); New Fl. N. Am. 2:20. 1836 [1837], nom. North America = M. trifoliata Linn.

\*MESADENIA Raf. Med. Fl. 1:198. 1828, nom. nov. Frasera Walt., iter. Man. Med. Bot. 198. 1841=Frasera Walt.

MONOSTERIA Raf. Fl. Tellur. 3:49. 1836 [1837], descr.= Hoppea Willd. (1801).

dichotoma Raf. 1.c., descr. (Exacum pusillum Raf. [Pladeria pusilla Roxb.]; Hopea dichotoma Vahl). India=Hoppea dichotoma Willd.

NARKETIS Raf. Fl. Tellur. 3:26. 1836 [1837], descr.; New Fl. N. Am. 4:93. 1836 [1838] nom.=Lomatogonium A. Br.

(1830); see Fernald, Rhodora 21:194. 1919. carinthiaca Raf. ex Jacks\*. Ind. Kew. 2:295. 1894 (Gentiana carinthiaca Froel.)=Pleurogyna carinthiaca (Froel.) G. Don. Eurasia.

hyperborea Raf. Fl. Tellur. 3:26. 1836 [1837], descr. Vancouver Island (Kotzebue Sound)=Pleurogyna rotata Griseb.=Lomatogonium rotatum (Linn.) Fries.

japonica Raf. 1.c., nom. (Swertia rotata sensu Thunb.). Japan=Swertia chinensis (Bunge) Franch.

rotata Raf. 1.c., descr. Altai Mountains=Pleurogyna rotata Griseb. = London gonium rotatum (Linn.) Fries; see Fernald, Rhodora 21:194. 1919.

sulcata Raf. ex Jacks\*. Ind. Kew. 2:295. 1894 (Gentiana sulcata Willd.) = praec.

NEUROLA Raf. New Fl. N. Am. 4:92. 1836 [1838], descr. sub Sabatia? nervosa Raf. = Sabatia Adans. (1763).

arkanzica Raf. l.c., nom. alt. Sabatia ? nervosa Raf., Aut. Bot. 55. 1840, nom. Arkansas.

OBOLARIA Linn.

ramosa Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom.; Herb. Raf. 60. 1833, nom. Kentucky.

ONEFERA Raf. Fl. Tellur. 3:30. 1836 [1837], descr. = Chironia Linn.

coccinea Raf. 1.c., descr. (Chironia linoides Linn.). South Africa.

PARASIA Raf. ex Jacks\*. Ind. Kew. 2:424. 1894, sphalm.= seq.

cordata Raf. ex Jacks\*. 1.c. (Exacum cordatum Linn. f.). South Africa = Belmontia exacoides (Linn.) Druce (B. cordata E. Mey.).

\*PARRASIA Raf. Fl. Tellur. 3:78. 1836 [1837], descr.=Belmontia E. Mey. (1837), nom. conserv. (Parrasia Raf., 1837). \*cordata Raf. l.c., descr. (Exacum cordatum Linn. f.; Gentiana exacoides Linn.). South Africa=Belmontia exacoides

(Linn.) Druce (B. cordata E. Mey.). #PICRIZA Raf. Fl. Tellur. 3:18. 1836 [1837], descr., subgen.

Gentiana Linn. (Type Gentiana lutea Linn.) = seq. \*PIORIZA Raf. Sylva Tellur. 3:99. 1836 [1837], nom. in indice, sphalm.=Picriza Raf. (1837)=Gentiana Linn.

PLEIENTA Raf. Fl. Tellur. 3:30. 1836 [1837], descr.; Good Book 46. 1840, nom.=Sabatia Adans. (1763) (Lapithea Griseb., 1845).

capitata Raf. 1.c., descr. Unaka and Cheroki Mountains, North Carolina = Sabatia capitata (Raf.) Blake (S. boykinii Gray; Lapithea capitata Small).

dodecandra Raf. ex Jacks\*. Ind. Kew. 2:561. 1894 (Chlora dodecandra Linn.). Eastern North America = Sabatia dodecandra (Linn.) Britton, Sterns & Poggenb. fasciculata Raf. Fl. Tellur. l.c., nom.

flexuosa Raf. 1.c., nom.

\*gentianoides Raf. op. cit. 31, nom., sub P. capitata Raf. [Sabatia gentianoides Ell.]. Southeastern United States — Sabatia gentianoides Ell. (Lapithea gentianoides Griseb.).

Fil. N. Am. 4:92. 1836 [1838], descr.; Aut. Bot. 55. 1840, nom. New Jersey to Florida, on seashores = Sabatia campanulata (Linn.) Torr.

quinquenervia Raf. New Fl. N. Am. 4:91. 1836 [1838], descr.; Aut. Bot. 55. 1840, nom. Louisiana.

rigida Raf. Fl. Tellur. 3:30. 1836 [1837], nom. (Chlora dodecandra Linn.]; Herb. Raf. 80. 1833, nom. (Chlora dodecandra Linn.; Chironia decandra Walt.). Alabama or Florida=Sabatia dodecandra (Linn.) Britton, Sterns & Poggenb. (S. chloroides Pursh), et S. decandra (Walt.) Harper.

PLEURIMARIA Raf. ex Jacks\*. Ind. Kew. 2:563. 1894= Plurimaria Raf.=Chlora Adans. (1763).

mascariensis Raf. ex Jacks\*. 1.c. (Chlora mascariensis Desf.).

Europe, Asia Minor=Chlora perfoliata Linn. perfoliata Raf. ex Jacks\*. 1.c. (Chlora perfoliata Linn.). Europe, Asia Minor.

quadrifolia Raf. ex Jacks\*. 1.c. (Chlora quadrifolia Linn.). Southern Europe.

#PLEUROGLOSSA Raf. Fl. Teilur. 3:19. 1836 [1837], descr., subgen. Gentiana Linn. (Type Gentiana punctata Linn.).

#PLURIMARIA Raf. Med. Fl. 2:76. 1830, nom., subgen. Sabatia Adans.

\*PLURIMARIA Raf. Fl. Tellur. 3:31. 1836 [1837], descr. (Type Chlora perforata Linn.) = Chlora Adans. (1763); see also Pleurimaria Raf. ex Jacks.

PNEUMONANTHE Gleditsch=Gentiana Linn. gracilis Raf. Fl. Tellur 3:28. 1836 [1837], nom. (Gentiana gracilis Nees). Europe, North America = Gentiana amarella Linn.

media Raf. op. cit. 19, descr., 28, nom. (Gentiana pneumonanthe auct. Am., non Linn.; G. pseudo-pneumonanthe Roem. & Schult.). Canada and New England=Gentiana linearis Froel.

minor Raf. op. cit. 28, descr. Europe=Gentiana pneumonanthe Linn.

rigida Raf. 1.c., nom. (Gentiana rigida Raf.). Kentucky, Ten-

torreyana Raf. 1.c., nom. (Gentiana torreyana Raf.). Kentucky, Tennessee, Illinois.

\*vulgaris Raf. I.c., descr. (Gentiana pneumonanthe Linn.). Eurasia (Pneumonanthe vulgaris W. F. Schmidt, 1796).

POGOBLEPHIS Raf. Fl. Tellur. 3:26. 1836 [1837], descr.= Gentiana Linn. missurica Raf. l.c., descr. (Gentiana acuta sensu Nutt.). Upper

Missouri=Gentiana amarella Linn. var. acuta (Michx.) Herder.

PSALINA Raf. Fl. Tellur. 3:25. 1836 [1837], descr.=Gentiana Linn.

exacoides Raf. ex Jacks\*. Ind. Kew. 2:637. 1894 (Gentiana exacoides Linn.). South Africa=Belmontia exacoides (Linn.) Druce. (B. cordata E. Mey.)=Sebaea exacoides (Linn.) Schinz.

utriculosa Raf. ex Jacks\*. 1.c. (Gentiana utriculosa Linn.). Europe.

RICOILA Raf. Fl. Tellur. 3:23. 1836 [1837], descr. [Ericala Reneaulme Spec. Hist. Pl. 75. 1611] = Gentiana Linn. bavarica Raf. l.c., nom. (Gentiana bavarica Linn.). Europe. pumila Raf. l.c., nom. (Gentiana pumila Jacq.). Europe. verna Raf. l.c., nom. (Gentiana verna Linn.). Europe. verna Raf. l.c., nom. (Gentiana verna Linn.). Europe.

#ROTULARIA Raf. Med. Fl. 1:208. 1828, descr., subgen.

Gentiana Linn., iter. Man. Med. Bot. 208. 1841 (Type
Gentiana lutea Linn.); Casket 1830:414. 1830, nom.; Sat.

Eve. Post 9(482):[1]. 1830, nom.=Gentiana Linn.

SABATIA Adans. (Sabbatia auct.). \*albeola Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824,

nom. Kentucky. amena Raf. Fl. Tellur. 3:30. 1836 [1837], nom. Hab.?

anceps Raf. 1.c., nom. Hab.? angularis Pursh; Raf. Med. Fl. 2:76. 1830. North America. var. albiflora Raf. op. cit. 77, nom.

var. atoliora Rat. op. cit. 77, nom.
elatior Raf. 1.c., nom.
latifolia Raf. 1.c., nom.
brevifolia Raf. Atl. Jour. 1:147. 1832, descr. Florida.
\*centaurium Raf. Casket 1827:316. f. 29. 1827, nom., nota
(Gentiana centaurium Linn.; Chironia centaurium Schmidt);
Sat. Eve. Post 6(318):[4]. 1827. Europe=Centaurium um-

bellatum Gilibert.

\*cymosa Raf. Fl. Tellur. 3:30. 1836 [1837], nom. Hab.? \*declinata Raf. Herb. Raf. 69. 1833, nom. Long Island, New

Jersey, Chesapeake Bay. diffusa Raf. Fl. Tellur. 3:30. 1836 [1837], nom. Hab.? heterophyla Raf. l.c., nom. Hab.? \*lanceolata Raf. l.c., nom. Hab.?

lingulata Raf. l.c., nom. Hab.? \*maritima Raf. Med. Fl. 2:77. 1830, descr. New Jersey, New York=S. stellaris Pursh. nervosa Raf. New Fl. N. Am. 4:92. 1836 [1838] descr.; Aut.

Bot. 55. 1840, nom. Arkansas. nivea Raf. Med. Fl. 2:77. 1830, descr.; Fl. Tellur. 3:30. 1836

[1837], nom. Kentucky.

obtusifolia Raf. Fl. Tellur. 3:30. 1836 [1837], nom. Hab.? petiolata Raf. l.c., nom. Hab.?

pulchella Raf. Herb. Raf. 69. 1833, nom. (pulchela); Griseb. in DC. Prodr. 9:49. 1849, nom., in syn. Long Island, New Jersey, Chesapeake Bay Sabatia gracilis Salisb. Sabatia campanulata (Linn.) Britton.

pumila Raf. Herb. Raf. 69. 1833, nom.; Fl. Tellur. 3:30.

1836 [1837], nom. Long Island, New Jersey, Chesapeake

Bay.

SABATIA (continued).

stricta Raf. Fl. Tellur. 3:30. 1836 [1837], nom. Hab.? tenuifolia Raf. l.c., nom. Hab.?

umbellata Raf. 1.c., nom. Hab.?

SCHULTZIA Raf. ex Jacks\*. Ind. Kew. 2:834. 1895=Shultzia Raf. (1806)=Obolaria Linn. obolarioides Raf. ex Jacks\*. 1.c. (Shultzia obolarioides Raf.).
Pennsylvania = Obolaria virginica Linn.

†SHULTZIA Raf. Med. Repos. II. 3:422, 1806, nom.; op. cit. 5:356. 1808, descr.; Jour. Bot. (Paris) 1:219. 1809, descr.; Am. Monthly Mag. Crit. Rev. 2:172. 1818, nom.=Obo-

\*obolarioides Raf. 11.cc. nom., descr. Pennsylvania = Obolaria

virginica Linn.

SYNALLODIA Raf. New Fl. N. Am. 4:93. 1836 [1838], nom. = Swertia Linn. japonica Raf. I.c., nom. (Swertia rotata Thunb., non Linn.).

Japan = Swertia japonica (Schult.) Nakai.
TETROHIZA Raf. ex Jacks\*. Ind. Kew. 2:1055. 1895, sphalm. =Tretorhiza Adans. (1763)=Tretorrhiza Renealm. (1800) =Gentiana Linn.

THYLACITIS Raf. Fl. Tellur. 3:25. 1836 [1837], descr. Thylakitis Reneaulme Spec. Hist. Pl. 70. 1611) = Erythraea Renealm. (1796).

compressa Raf. l.c., descr. (Gentiana maritima Linn., "var."; Erythraea maritima Pers., "var."). Morocco.

leptina Raf. 1.c., descr. (Gentiana leptina Raf.). Italy, Sicily. maritima Raf. 1.c., descr. (Gentiana maritima Linn.; Erythraea maritima Pers.). Europe.

TRACHYSPERMA Raf. Med. Repos. II. 5:352. 1808, nom.; Jour. Bot. (Paris) 2:171. 1809, nom.=Limnanthemum S. T. Gmel. (1770)=Nymphoides Hill (1756).

natans Raf. 11.cc., nom. (Menyanthes trachysperma Michx.); A. Gray, Am. Jour. Sci. 40:228. 1841, nom. Eastern North America=Limnanthemum trachyspermum A. Gray= Nymphoides aquaticum (Walt.) Fernald.

\*TRASERA Raf. Cincinnati Lit. Gaz. 2:11. 1824, nom., sphalm.

=Frasera Walt. (1788).

#TULBELA Raf. Fl. Tellur. 3:19. 1836 [1837], descr., subgen. Gentiana Linn. (Type Gentiana rossica Raf.=G. septemfida Pallas)=Gentiana Linn.

XOLEMIA Raf. Fl. Tellur. 3:20, 22. 1836 [1837], descr., nom. nov. Cutlera Raf. 1818; New Fl. N. Am. 4:93. 1836 [1838], nom.=Gentiana Linn.

acuminata Raf. Fl. Tellur. 1.c., nom. Hab.?

albiflora Raf. l.c., nom. [Gentiana albiflora Lam.]. Europe. axillaris Raf. l.c., nom. [Gentiana axillaris Raf.]. Western Kentucky.

catesbyi Raf. 1.c., nom. [Gentiana catesbaei Walt.]. Southeastern United States.

clausa Raf. l.c., nom. [Gentiana clausa Raf.]. Vermont, New

collinsiana Raf. l.c., nom. [Gentiana collinsiana Raf.]. Ken-

tucky, Illinois, Missouri. elliotea Raf. 1.c., nom. [Gentiana elliotea Raf.]. Western Kentucky.

enervis Raf. 1.c., nom. Hab.?

fistulosa Raf. I.c., nom. Hab.?

heterophyla Raf. l.c., nom. [Gentiana heterophyla Raf.]. Virginia, Kentucky, Tennessee.

latifolia Raf. l.c., nom. Hab.? longiflora Raf. l.c., nom. Hab.? obovata Raf. l.c., nom. Hab.?

palustris Raf. l.c., nom. [Gentiana palustris Raf.]. Florida. rotundifolia Raf. l.c., nom. Hab.?

rubella Raf. 1.c., nom. Hab.? serpentaria Raf. 1.c., nom. [Gentiana serpentaria Raf.]. Indiana, Illinois, Kentucky,

shortiana Raf. l.c., nom. [Gentiana shortiana Raf.]. Kentucky, Tennessee, Illinois.

striata Raf. l.c., nom. Hab.?

terniflora Raf. l.c., nom. Hab.?

trachiloma Raf. op. cit. 28, descr. New Jersey.

var. biflora Raf. 1.c., descr.

major Raf. l.c., descr. (Gentiana loomesi Torr.). North Carolina.

## APOCYNACEAE

AMSONIA Walt.

\*glauca Raf. Herb. Raf. 61. 1833, nom. Kentucky or Illinois.

**ANSONIA** Raf. New Fl. N. Am. **4**:58. 1836 [1838], nom.; Aut. Bot. 22, 183. 1840, nom.=Amsonia Walt. (1788).

\*angustifolia Raf. Il.cc., nom. [Amsonia angustifolia Michx.]. North America.

\*ciliata Raf. 11.cc., descr., nom. (Amsonia ciliata Walt.). Carolina.

elliptica Raf. 11.cc., descr., nom. (Amsonia elliptica Roem. & Schult.). Alabama.

latifolia Raf. Il.cc., descr., nom. (Amsonia latifolia Michx.). Carolina, Louisiana = Amsonia tabernaemontana Walt. salicifolia Raf. 11.cc., descr., nom. (Amsonia salicifolia Pursh).

Kentucky to Louisiana.

tenuifolia Raf. 11.cc., descr., nom. Florida. APOCYNUM Linn.

androsaemifolium Linn. North America.

var. acuminatum Raf. Med. Fl. 1:262, 1828, nom. acutifolium Raf. 1.c., nom. latifolium Raf. Aut. Bot. 181. 1840, nom. obtusifolium Raf. Med. Fl. 1.c., descr.
parvifolium Raf. Aut. Bot. 181. 1840, nom.
pauciflorum Raf. 1.c., nom.
roseum Raf. Med. Fl. 1.c., nom.
\*clandestinum Raf. Aut. Bot. 181. 1840, descr. New Jersey.
\*dimidiatum Raf. 1c. descr. Florida.

\*dimidiatum Raf. 1.c., descr. Florida.

hypericifolium Ait.=A. cannabinum Linn. Eastern North America.

var. angustifolium Raf. op. cit. 182, nom. latifolium Raf. 1.c., nom. procumbens Raf. 1.c., nom.

\*molle Raf. 1.c., descr. Alleghany Mountains.

\*rotundifolium Raf. 1.c., descr. Alleghany Mountains.

CASCABELA Raf. Sylva Tellur. 162. 1838, descr.=Thevetia
Adans. (1763), nom. conserv. (Ahouai Boehm., 1760).

peruviana Raf. 1.c., descr. (Cerbera peruviana Pers.; Cerbera thevetia Linn.)=Thevetia peruviana (Pers.) K. Schum.

(T. nereifolia Juss.).

CERBERA Linn.

\*ahuai Raf. Sylva Tellur. 162. 1838, nom., nota (Cerbera ahouai Linn.). South America = Thevetia ahouai A. DC. = Plumieropsis ahouai (Linn.) Rusby & Woods. N. Am. Fl. 29:132. 1938 (Ahovai nitida Pichon, Not. Syst. 13:227. 1948)

ECHITES P. Browne.

\*acuminata Raf. Herb. Raf. 60. 1833, nom. Illinois or Kentucky

salicifolia Raf. New Fl. N. Am. 4:59. 1836 [1838], descr.; Aut. Bot. 183. 1840, nom., non Willd. Florida=Trachelospermum difforme (Walt.) A. Gray. tomentosa Raf. Fl. Ludovic. 46. 1817, descr. (Liseron ligneux Rob. Voy. Louis. 3:402. 1807). Louisiana=? praec.

LACTARIA Raf. Sylva Tellur. 162. 1838, descr. = Ochrosia Juss. (1789).

salubris Raf. 1.c., nom. (Lactaria salubris Rumph. Herb. Amb. 2:255. t. 84. 1741; Cerbera oppositifolia Lam.). Moluccas =Ochrosia oppositifolia (Lam.) K. Schum.; see Merrill, Interpret. Rumph. Herb. Amb. 431. 1917.

NEIOSPERMA Raf. Sylva Tellur. 162. 1838, descr.=Ochrosia Juss. (1789).

muricata Raf. 1.c., nom. (Cerbera platyspermos Gaertn.). Mascarene Islands=Ochrosia borbonica Gmel.

musculiformis Raf. 1.c., nom. (Cerbera musculiformis Lam.).

Moluccas=Neuburgia musculiformis (Lam.) Miq.; see Merrill, Interpret. Herb. Amb. 425. 1917 (Loganiaceae).

ODOLLAMIA Raf. Sylva Tellur. 162. 1838, descr. [Odollam Adans.]=Cerbera Linn.

malabarica Raf. 1.c., nom. (Odallam Rheede, Hort. Malabar. 1:71. t. 39. 1678). India—Cerbera manghas Linn.

manghas Raf. 1.c., nom. (Cerbera manghas Linn.). Malaysia = Cerbera manghas Linn. (C. odollam Gaertn.)
moluca Raf. l.c., nom. "Odollam Rumf. l.t. 124." sphala
Moluccas. Ut videtur = Cerbera manghas Linn.

sphalm.29

\*OPHYOXYLON Raf. First Cat. Bot. Gard. Transylv. Univ. 22. 1824, nom.=Ophioxylon Linn.

\*serpentinum Raf. 1.c., nom.=Ophioxylon serpentinum Linn. =Rauwolfia serpentina (Linn.) Benth. India.
PERVINCA Adans.=Vinca Linn.

\*heterophyla Raf. Aut. Bot. 184. 1840, descr. England, Ireland=Vinca minor Linn.

<sup>&</sup>lt;sup>29</sup> Rumphius "1.t. 124" is an error, there being but 82 plates in volume one of the *Herbarium Amboinense*; neither is there any "Odollam" in Rumphius' work.

\*repens Raf. l.c., descr. Europe; naturalized in Pennsylvania =Vinca minor Linn.

\*sicula Raf. l.c., descr. Sicily.

\*TABERNARIA Raf. Fl. Tellur. 1:17, 86. 1837, nom. nov. Tabernaemontana Linn.

THEVETIA Linn.

ahoui Raf. Sylva Tellur. 91. 1838, nom. South America = T. ahouai A. DC. = Plumieropsis ahouai (Linn.) Rusby & Woods. (Ahovai nitida Pichon).

linearis Raf. 1.c., nom. (Cerbera thevetia Linn.). South America=Thevetia peruviana (Linn.) K. Schum.

# ASCLEPIADACEAE

†ACEROTIS Raf. Am. Monthly Mag. Crit. Rev. 3:99. 1818, nom. nov. Acerates Ell. (1817); New Fl. N. Am. 1:49. 1836, nom., nota (Otanema Raf.); op. cit. 4:60. 1836 [1838], nom., nota; Aut. Bot. 180, 200. 1840, nom.=Acerates Ell. (1817)=Asclepias Linn.

AMPELAMUS Raf. Am. Monthly Mag. Crit. Rev. 4:192. 1819, nom. nov. Enslenia Nutt. (1818), non Raf. (1817); op. cit. 207, nom.; Jour. Phys. Chim. Hist. Nat. 89:258. 1819, nom. (Enslenia Nutt. (sphalm. Raf. "Emlenia") (1818), non Raf. (1817); Herb. Raf. 62. 1833, nom. (Enslenia albida Nutt.)=Enslenia Nutt. (1818)=Gonolobus Michx. (1803).

\*riparius Raf. Aut. Bot. 183. 1840, nom. (Enslenia albida Nutt.). Ohio to Missouri=Gonolobus laevis Michx. (Cy-

nanchum laeve Pers.).

AMPELANUS Raf. ex Jacks\*. Ind. Kew. 1:110. 1893, sphalm. =Ampelamus Raf.=Enslenia Nutt. (1818)=praec.

ANANTHERIX Nutt. = Asclepiodora A. Gray (1876) = Asclepias

angustifolia Raf. ex Jacks\*. Ind. Kew. 1:116. 1893 (Anatherix angustifolia Raf.). Central United States = Asclepias capricorna Woods. Ann. Missouri Bot. Gard. 32:370. 1945. grandiflora Raf. New Fl. N. Am. 4:59. 1836 [1838], descr.;

Aut. Bot. 22, 180. 1840, nom. Arkansas = Asclepias viridis Walt.

ovata Raf. ex Jacks\*. 1.c. (Anatherix ovata Raf.). Central

United States=Asclepias viridis Walt. verrucosa Raf. New Fl. N. Am. 4:60. 1836 [1838], nom., nota (Asclepias connivens Baldw. ex Ell.); Aut. Bot. l.c., nom., Alabama=Asclepias connivens Baldw. (Anantherix \*connivens Feay in Wood, Class-Book 594. 1861).

**ANATHERIX** Steud. (1821), sphalm.; Torr. Ann. Lyc. Nat. Hist. N. Y. 2:219. 1827, nom.; Raf. Atl. Jour. 1:146. 1832, nom.=Anantherix Nutt. (1818)=Asclepiodora A. Gray

(1876) = Asclepias Linn.

\*angustifolia Raf. l.c., nom. (Anantherix n. sp. Nutt.; Torr. Ann. Lyc. Nat. Hist. N. Y. 2:219. 1827). Central United States = Asclepias capricorna Woods. Ann. Missouri Bot. Gard. 32:370. 1945.

\*ovata Raf. l.c., nom. (Anantherix n. sp. Nutt.; Torr. l.c. descr.) Central United States=Asclepias viridis Walt.

ANTHANOTIS Raf. Fl. Ludovic. 52 (subgen.), 149, (gen.) 1817, nom., nota (Asclepias? procumbens Raf.); Am. Monthly Mag. Crit. Rev. 2:176. 1818, nom., nota (Acerates Ell.)=Asclepiodora A. Gray (1876)=Asclepias Linn. pedicellata Raf. ex Jacks\*. Ind. Kew. 1:143. 1893 (Asclepias Linn.)

pedicellata Walt.). Southeastern United States=Asclepias pedicellata Walt. (Podostigma pedicellata Vail).

procumbens Raf. Fl. Ludovic. 149. 1817, nom., nota (Asclepias \* procumbens Raf. op. cit. 51; Asclépiade 2, Herbe à la houate Rob. Voy. Louis. 3:413. 1807). Louisiana. viridis Raf. ex Jacks\*. Ind. Kew. 1:143. 1893 (Asclepias viridis Walt.). Carolina=Asclepiodora viridis (Walt.) A. Gray=Asclepias viridis Walt.

ASCLEPIAS Linn.

acuminata Pursh. North America.

var. angustifolia Raf. Aut. Bot. 180. 1840, nom.

latifolia Raf. 1.c., nom.

longifolia Raf. 1.c., nom.
albiflora Raf. New Fl. N. Am. 4:62. 1836 [1838], descr.;
Aut. Bot. 177. 1840, nom. Unaka or Iron Mountains, North Carolina = Asclepias incarnata Linn., f. albiflora Heller.

\*annulata Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom. Kentucky.

\*capitellata Raf. Med. Fl. II. 5:354. 1808, nom. nov. A. syriaca Linn. Eastern United States.

\*cuneifolia Raf. Aut. Bot. 179. 1840, descr. Virginia, Florida =Asclepias tuberosa Linn.

cutea Raf. Am. Monthly Mag. Crit. Rev. 1:359. 1817, nom. Near Philadelphia.

dasypus Raf. Atl. Jour. 1:152. 1832, descr. Near Lakes Erie and Ontario=Asclepias purpurascens Linn.

\*elliptica Raf. Aut. Bot. 179. 1840, descr. Pennsylvania, Kentucky=Asclepias tuberosa Linn.

\*flexuosa Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom. Kentucky.

fragrans Raf. Med. Repos. II. 5:354. 1808, nom. nov. A. syriaca Linn.; Jour. Bot. (Paris) 2:174. 1809, nom. (A. syriaca Linn.). North America=A. syriaca Linn.

\*gonalis Raf. Aut. Bot. 178. 1840, descr. Arkansas=? Asclepias purpurascens Linn.

\*lancifolia Raf. Aut. Bot. 177. 1840, descr. Florida = Asclepias

perennis Walt.

\*lasiotis Raf. op. cit. 178, descr. New Jersey=? Asclepias purpurascens Linn.

latifolia (Torr.) Raf. Atl. Jour. 1:146. 1832, nom. (Asclepias obtusifolia Michx. var. latifolia Torr. Ann. Lyc. Nat. Hist. N. Y. 2:217. 1827, descr.). Canadian River? (A. jamesii Torr.). Nebraska to Utah, Texas and Arizona.

lutea Raf. Med. Repos. II. 5:361. 1808, descr.; Jour. Bot. (Paris) 1:229. 1809, descr.; Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom. Pennsylvania, near Philadelphia=

Asclepias tuberosa Linn.

†maritima Raf. Am. Monthly Mag. Crit. Rev. 2:119. 1817, descr.; Fl. Ludovic. 170. 1817, nom.; Herb. Raf. 69. 1833, nom.; New Fl. N. Am. 4:62. 1836 [1838], nom.; Aut. Bot. 178. 1840, descr.; Decne. in DC. Prodr. 8:567. 1844, nom. in syn. sub Asclepias incarnata Linn. var. pulchra Decne. Long Island to Carolina=Asclepias incarnata Linn. var. pulchra (Ehrh.) Pursh.

megalotis Raf. New Fl. N. Am. 4:61. 1836 [1838], descr.; Aut. Bot. 177. 1840, nom. Florida=Asclepias obovata Ell. parviflora Ait. North America.

var. angustifolia Raf. Aut. Bot. 179. 1840, nom.

debilis Raf. l.c., nom. lanceolata Raf. l.c., nom. latifolia Raf. l.c., descr. Florida. longifolia Raf. l.c., nom.

paupercula Michx. Eastern North America. var. latifolia Raf. Aut. Bot. 180. 1840, nom.

longifolia Raf. 1.c., nom.

procumbens Raf. Fl. Ludovic. 51. 1817, descr. (Asclépiade 2, Rob. Voy. Louis. 3:413. 1807). Louisiana. quadrifolia Jacq. var. oppositifolia Raf. Aut. Bot. 177. 1840,

descr. (Asclepias vanillea Raf.). Maryland to Kentucky.
revoluta Raf. Fl. Ludovic. 51. 1817, descr. (Asclépiade 1,
Rob. Voy. Louis. 3:413. 1807). Louisiana=Asclepias

tuberosa Linn.

\*riparia Raf. Aut. Bot. 178. 1840, nom. nov. provis. Asclepias incarnata Linn. Eastern North America.

rotundifolia Raf. Atl. Jour. 1:152. 1832, descr., non Mill. (1768). Near Lakes Erie and Ontario=Asclepias amplexicaulis J. E. Sm.

\*scabra Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom. Kentucky.

\*sericea Raf. Aut. Bot. 179. 1840, nom. nov. Asclepias syriaca Linn. Eastern North America = Asclepias syriaca Linn.

serpentaria Raf. Fl. Ludovic. 10, nom., 52, descr., 1817 (Asclépiade è cornets pourpres Rob. Voy. Louis. 3:415. 1807); Med. Fl. 2:196. 1830, nom. Louisiana=Asclepias lanceolata Walt.

tuberosa Linn. North America.

var. angustifolia Raf. Med. Fl. 1:264. 1828, nom. cordata Raf. Aut. Bot. 179. 1840, nom. decumbens Raf. 11.cc., nom. (Asclepias decumbens

Linn.?).

erecta Raf. Aut. Bot. 179. 1840, nom.

latifolia Raf. l.c., nom. obtusifolia Raf. l.c., nom. pauciflora Raf. l.c., nom.

praealta Raf. Med. Fl. 1:264. 1828, nom. undulata Raf. Il.cc., nom.

\*vanilla Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom.; New Fl. N. Am. 4:62. 1836 [1838], nom., nota. Kentucky=Asclepias quadrifolia Jacq.

ASCLEPIAS (continued).

†vanillea Raf. Am. Monthly Mag. Crit. Rev. 4:40. 1818, descr.; Spreng. Neue Entdeck. 1:145. 1820, descr. Kentucky=praec.

variegata Linn. North America.

var. pumila Raf. Aut. Bot. 179. 1840, nom. rotundifolia Raf. l.c., nom.

undulata Raf. I.c., nom. villosa Raf. Med. Repos. II. 5:353. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom., non Mill. (1768). Central

Atlantic United States.

Atlantic United States.
viridiflora Raf. Med. Repos. II. 5:360. 1808, descr.; Jour.
Bot. (Paris) 1:227. 1809, descr.; Am. Monthly Mag. Crit.
Rev. 1:359. 1817, nom.; op. cit. 2:174, 176. 1818, nom.,
nota; op. cit. 4:193. 1819, nom., nota; Jour. Phys. Chim.
Hist. Nat. 89:257. 1819, nom., nota; First Cat. Bot. Gard.
Transylv. Univ. 13. 1824, nom. Pennsylvania to Maryland
and Kentucky (Asclepias viridiflora Pursh, Fl. Am. Sept.
1:181. 1814) — Asclepias viridiflora Raf. (Accrates \*miri-1:181. 1814) = Asclepias viridiflora Raf. (Acerates \*viridiflora Eaton, Man. ed. 5, 99. 1829).

CURNILIA Raf. Sylva Tellur. 21. 1838, descr. = Reinera Dennst.

(1818)=Curinila Roem. & Schult. (1819)=Leptadenia R.

Br. (1809).

sarmentosa Raf. 1.c., descr. (Curinil Rheede Hort. Malabar. 7:47. t. 25. 1688). India = Curinila rheedi Roem. & Schult. baypinensis Dennst.=Leptadenia reticulata (Retz) Wight & Arn.

CYNANCHUM Linn.

microphylum Raf. New Fl. N. Am. 4:59. 1836 [1838], descr.; Aut. Bot. 182, 1840, nom. Florida=Cynanchum scoparium Nutt.

\*EMLENIA Raf. Jour. Phys. Chim. Hist. Nat. 89:258. 1819, nom., sphalm. = Enslenia Nutt. (1818) = Cynanchum Linn.

GONOLOBUS Michx.

Bot. 182. 1840, nom. Arkansas and Texas=Matelea biflora (Raf.) Woods. Ann. Missouri Bot. Gard. 28:228. 1941.

\*discolor Raf. ex M'Murtrie Sketch. Louisv. 218. 1819, nom. Kentucky.

\*leve Raf. Fl. Ludovic. 139. 1817, nom.=G. laevis Michx. \*levigatus Raf. Aut. Bot. 183. 1840, descr. Carolina, Florida

=Gonolobus gonocarpus (Walt.) Perry \*GYMNIMA Raf. ex Britten, Jour. Bot. 38:226. 1900, nom.,

sphalm.=Gymnema R. Br. \*LYONSIA Raf. New Fl. N. Am. 4:107. 1836 [1838], nom. nov. Lyonia Ell., non Lyonia Raf. (1808), nec Nutt. (1818)

=Lyonia Ell. (1817) = Cynanchum Linn.

†cuspidata Raf. op. cit. 4:59. 1836 [1838], descr.; Aut. Bot. 22, 182. 1840, nom. (Ind. Kew. 2:133. 1894 sub Lyonsia R. Br.). Florida = Cynanchum scoparium Nutt.

\*maritima Raf. New Fl. N. Am. l.c., nom., nota (Lyonia maritima Ell.); Aut. Bot. 182, nom. Southeastern United States=Cynanchum angustifolium Pers. (1805). \*scoparia Raf. Aut. Bot. 182. 1840, nom. (Cynanchum scop-

arium Nutt.). Florida=Cynanchum scoparium Nutt.

\*MACBRIDEA Raf. Am. Monthly Mag. Crit. Rev. 3:99. 1818,
nom. nov. Lyonia Ell. (1817), in nota sub Lyonia [Ell.], non Lyonia Raf. (1808), nec Nutt. (1818); op. cit. 4:189. 1819, nom., non Macbridea Ell. (1818) = Cynanchum Linn.

\*maritima Raf. l.c., nom. (err. maratima) [Lyonia maritima Ell.]. Southeastern United States=Cynanchum angustifolium Pers. (1805) (Ceropegia palustris Pursh, Cynanchum palustre Heller, Seutera palustris Vail; Lyonia palustris Small)

OLIGORON Raf. New Fl. N. Am. 4:60. 1836 [1838], descr. (Acerates Ell.); Good Book 47. 1840, nom.=Acerates Ell.

(1817) = Asclepias Linn.

longifolium Raf. New Fl. 1.c., descr. (Asclepias longifolia Michx.; A. floridana Lam.; Acerates longifolia Ell.); Aut. Bot. 22, 180. 1840, nom. Carolina to Florida and Arkansas=Asclepias longifolia Michx.

var. hirsutum Raf. New Fl. I.c., descr.; Aut. Bot. 180, 1840, nom.=? Asclepias hirtella (Pennell) Woods. tenuifolium Raf. Il.cc., descr., nom. Arkansas=Asclepias longifolia Michx.

OTANEMA Raf. New Fl. N. Am. 1:49. 1836, nom. nov. Acerotis Raf.; op. cit. 4:61. 1836 [1838], descr.; Good Book 47. 1840, nom. = Acerates Ell. (1817) = Asclepias Linn.

lanceolata Raf. New Fl. I.c., descr. (Asclepias lanceolata Ives; A. \*nutans Muhl. Cat. 28. 1813; A. viridiflora Raf.); Aut. Bot. 23, 180. 1840, nom. New England to Kentucky= Asclepias viridiflora Raf. (Acerates viridiflora Eaton).

latifolia Raf. Il.cc., descr., nom. Alleghany Mountains to Kentucky=praec

var. retusa Raf. New Fl. 1.c., descr. ovata Raf. ll.cc., descr., nom. New England to Virginia= praec

PERIPLOCA Linn.

\*americana Raf. Aut. Bot. 183. 1840, descr. (P. graeca sensu auct. Am.). New Jersey to Carolina=P. graeca Linn. \*latifolia Raf. Herb. Raf. 70. 1833, nom. Long Island, New

Jersey, Chesapeake Bay.

#SEPTIXIS Raf. New Fl. N. Am. 4:63. 1836 [1838], descr.,

subgen. Asclepias Linn.
#STETHORHIZA Raf. New Fl. N. Am. 4:63. 1836 [1838], descr., subgen. Asclepias Linn. (Type Asclepias tuberosa Linn.)

VINCETOXICUM Linn.

\*acuminatum Raf. Aut. Bot. 181. 1840, descr. (Gonolobus laevis Michx.; Cynanchum laeve Pers.). Carolina, Florida= Gonolobus laevis Michx. officinale Moench. Europe.

var. angustifolium Raf. op. cit. 180, nom. latifolium Raf. l.c., nom. triflorum Raf. I.c., nom.

### CONVOLVULACEAE

ADAMBOE Raf. Fl. Tellur. 4:73. 1836 [1838], descr.=Ipomoea

bicolor Raf. 1.c., descr. (Ipomoea campanulata Linn.; Adamboe Rheede, Hort. Malabar 11:115. t. 56. 1692). India=Ipomoea campanulata Linn. (Rivea campanulata House).

AMPHIONE Raf. Fl. Tellur. 4:79. 1836 [1838], descr.=

Ipomoea Linn.

asarifolia Raf. l.c., descr. (Convolvulus asarifolius Desr.).
Senegal=Ipomoea asarifolia (Desr.) Roem. & Schult.

chenopodia Raf. 1.c., descr. (Convolvulus chenopodioides Desr.). Hab.?

cymosa Raf. 1.c., descr. (Convolvulus cymosus Desr.). Tropical Asia=Merremia umbellata (Linn.) Hall. f.

lobata Raf. 1.c., descr. (Ipomoea triloba Linn.; Convolvulus subtrilobus Sm.). Tropical America=Ipomoea triloba Linn. (I. mariannensis Choisy).

splendens Raf. Sylva Tellur. 130. 1838, descr. (Ipomoea splendens Sims Bot. Mag. 53: t. 2628. 1826; Lettsomia splendens Roxb.). India=Argyreia splendens (Roxb.) Sweet.

\*tiliefolia Raf. Fl. Tellur. 4:79. 1836 [1838], descr. (Convolvulus tiliaefolius "Com. Sm."). Africa=Stictocardia tiliaefolia (Desr.) Hall. f.

venosa Raf. 1.c., nom. (Convolvulus venosus Desr.). Mascarene Islands = Ipomoea venosa (Desr.) Roem. & Schult.

ANTHANEMA Raf. Fl. Tellur. 4:90. 1836 [1838], descr.=

Cuscuta Linn.

capitata Raf. 1.c., descr. Kentucky, Illinois.

paradoxa Raf. l.c., descr. (Cuscuta paradoxa Raf.). Kentucky=? C. glomerata Choisy (1841). verticillata Raf. l.c., nom. alt. A. paradoxa Raf. Kentucky=

praec

#APLIMIA Raf. Fl. Tellur. 4:71. 1836 [1838], descr., subgen provis. Tirtalia Raf. (Type Convolvulus filicaulis Vahl) = Ipomoea Linn. APLOSTYLIS Raf. Fl. Tellur. 4:91. 1836 [1838], descr.=

Cuscuta Linn., subgen. Monogyna Yuncker.

lupuliformis Raf. l.c., nom., nota (Cuscuta lupuliformis Krock. Fl. Siles. 1:261. t. 36. 1787; C. monogyna Vahl) Europe=Cuscuta lupuliformis Krock., et quoad syn. Vahl, C. monogyna Vahl.

APOPLEUMON Raf. Fl. Tellur. 4:72. 1836 [1838], descr.= Ipomoea Linn.

#BALLELA Raf. Fl. Tellur. 4:70. 1836 [1838], descr., subgen. Convolvulus Linn. (Type, Convolvulus repens Linn.) = Mer-

remia Dennst. (1818) repens Raf. ex Jacks\*. Ind. Kew. 1:266. 1893 (Convolvulus

repens Linn.) = Merremia hirta (Linn.) Merr.

BONANOX Raf. Ann. Gén. Sci. Phys. 8:272. 1821, nom. (Ipo-moea bona-nox Linn.); Fl. Tellur. 4:77. 1836 [1838],

descr.=Calonyction Choisy (1833).
indica Raf. Fl. Tellur. l.c., descr. (Ipomoea bona-nox Linn.;
Munda-valli Rheede, Hort. Malabar. 11:103. t. 50. 1692
[Ipomoea alba Linn.!])=Calonyction album (Linn.) House.

muricata Raf. l.c., descr. (Convolvulus muricatus Linn.; Ipomoea bona-nox sensu Ker-Gawl. Bot. Reg. 4: t. 290. 1818). India=Calonyction sp. (floribus purpureis). orbiculata Raf. 1.c., descr. (Ipomoea orbicularis

Florida=Ipomoea pes-caprae (Linn.) Sweet.

riparia Raf. l.c., descr. (Ipomoea bona-nox sensu Sims Bot. Mag. 20: t. 752. 1804). Florida, West Indies=Calonyction aculeatum (Linn.) House.

BUCHAREA Raf. Fl. Tellur. 4:84. 1836 [1838], descr.=Con-

volvulus Linn.

atlantica Raf. 1.c., descr. (Convolvulus suffruticosus Desf. Fl. Atl. 1: 175. t. 48. 1798). Madeira.
maderensis Raf. 1.c., descr. (Convolvulus suffruticosus Dry.;

Ker-Gawl. Bot. Reg. 2: t. 133. 1816). Madeira=Convolvulus canariensis Linn.

\*CALISTEGIA Raf. Am. Monthly Mag. Crit. Rev. 4:191. 1819, nom., nota; Fl. Tellur. 4:71. 1836 [1838], nom. sub Milhania Raf. = Calystegia R. Br. (1810), nom. conserv. (Volvulus Medic., 1791).

CALYSTEGIA R. Br. (1810), nom. conserv. (Volvulus Medic., 1791).

mutabilis Raf. Fl. Ludovic. 46. 1817, descr. (Liseron blanc à limbe bleu Rob. Voy. Louis. 3:401. 1807). Louisiana. †riparia Raf. Herb. Raf. 69. 1833, nom.; New Fl. N. Am. 2:29. 1836 [1837], descr. (Calystegia sepium auct. Am.). New Jersey, New York, Chesapeake Bay=Convolvulus sepium Linn. var. americanus Sims (Calystegia sepium R. D. D. R. Br.)

villosa Raf. Fl. Ludovic. 45. 1817, descr. (Liseron à fleurs blanches Rob. Voy. Louis. 3:400. 1807). Louisiana = Convolvulus sepium Linn. var. repens (Linn.) A. Gray.

CAMONEA Raf. Fl. Tellur. 4:81. 1836 [1838], descr.=Merremia Dennst. (1818).

bifida Raf. I.c., descr. (Convolvulus bifidus Vahl). Java=Merremia umbellata (Linn.) Hall. f.
#CAULOTULIS Raf. Fl. Tellur. 4:76. 1836 [1838], descr., subgen. Modesta Raf. (Type Modesta tuberculata Raf.; Ipomoea tuberculata Ker-Gawl. Bot. Reg. 1: t. 86. 1816;
Convolvulus digitatus Roxb.). India=Ipomoea Linn.

CLEIEMERA Raf. Fl. Tellur. 4:77. 1836 [1838], descr.=
Pharbitis Choisy (1833)=Ipomoea Linn.

cuspidata Raf. op. cit. 78, nom. (Convolvulus flore purpureo Dill. Hort. Eltham. 99. t. 83. f. 96. 1732). Mexico. guinensis Raf. 1.c., nom. (Convolvulus caeruleus major folio

hederaceo Dill. Hort. Eltham. 97. t. 81. f. 93. 1732). Tropical Africa.

hederacea Raf. op. cit. 77, descr. (Ipomoea hederacea Jacq. Collect 1:124. 1786; Ker-Gawl. Bot. Reg. 1: t. 85. 1816; Ipomoea barbata Roth; Ipomoea nil sensu Pursh; Convolvulus nil sensu Michx.). North America=Ipomoea hederacea (Linn.) Jacq. hirsuta Raf. op. cit. 78, descr. (Ipomoea nil sensu Ell.; Con-

volvulus caeruleus, hederaceo folio Dill. Hort. Eltham 96. t. 80. f. 92. 1732). Virginia, Carolina=Ipomoea hederacea (Linn.) Jacq.

indica Raf. l.c., nom. (Convolvulus nil Linn.; Curtis Bot. Mag. 3: t. 188. 1792; Convolvulus caeruleus, hederaceo anguloso folio Dill. Hort. Eltham 96. t. 80. f. 91. 1732). Pantropic=Ipomoea hederacea (Linn.) Jacq.

**CLEIOSTOMA** Raf. Fl. Tellur. 4:80, 1836 [1838], descr. =

Ipomoea Linn.

villosa Raf. 1.c., descr. (Convolvulus aggregatus Lour.). Indo-China (Annam) = Ipomoea pes-tigridis Linn.; see Merrill, Trans. Am. Philos. Soc. II. 24(2): 327. 1935.

\*CODOCHISMA Raf. Ann. Gén. Sci. Phys. 8:271. (Type Convolvulus pentapetaloides Linn.). Southern Europe and Asia Minor=Convolvulus Linn.

\*CODOSIPHUS Raf. Ann. Gén. Sci. Phys. 8:271. 1821, descr. (Convolvulus sp.) = Convolvulus Linn.

COILADENA Raf. Fl. Tellur. 2:12. 1836 [1837], descr.= Ipomoea Linn.

hyemalis Raf. l.c., descr. (Ipomoea horsfalliae Hook. Bot. Mag. 61: t. 3315. 1834). Africa?
CONVOLVULUS Linn.

\*acutilobus Raf. Herb. Raf. 60. 1833, nom. Kentucky or Illinois.

\*capitatus Raf. Fl. Ludovic. 46. 1817, descr. (Liseron ombel-lifère à fleurs bleues Rob. Voy. Louis. 3:401. 1807); M'Murtrie, Sketch. Louisv. 216. 1819, nom., non Vahl. Louisiana, Kentucky=C. scabrus Raf.

\*egyptius Raf. Fl. Tellur. 4:80. 1836 [1838], nom. in syn. sub Exocroa Raf.=Convolvulus aegyptius Linn. Egypt. \*flexipes Raf. Herb. Raf. 60. 1833, nom. Kentucky or Illi-

nois.

griseus Raf. Atl. Jour. 1:177. 1833, descr.; Herb. Raf. 23. 1833, descr. Texas.

\*lariospermus Raf. Ann. Gén. Sci. Phys. 8:271. 1821, nom. sub Lariospermum Raf., sphalm. = Convolvulus lasiospermus Vis. = C. rumicifolia Choisy. India, Tropical Africa. literalis Raf. Fl. Tellur. 4:74. 1836 [1838], nom. sub Troxula

Raf., sphalm.=Convolvulus littoralis Linn.=Ipomoea car-

nosa R. Br. Tropical regions.

nervosus Raf. Fl. Ludovic. 46. 1817, descr. (Liseron blanc à fond pourpre Rob. Voy. Louis. 3:400. 1807). Louisiana.

\*parvifolius Raf. Herb. Raf. 60. 1833, nom. Kentucky or

\*scabrus Raf. Fl. Tellur. 4:70. 1836 [1838], sub Lacara Raf., nom. nov. Convolvulus capitatus Raf., non Vahl. Louisiana.

\*subtrilobus Raf. l.c., nom. sub Lacara Raf. An C. sublobatus Linn. f.?

\*CRESSARIA Raf. Ann. Gén. Sci. Phys. 8:270. 1821, nom. nov. Cressa Linn.

CUSCUTA Linn.

acaulis Raf. Ann. Nat. Ann. Synop. 13. 1820, descr.; First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom. Kentucky. \*amplectens Raf. ex M'Murtrie, Sketch. Louisv. 215. 1819,

nom. Kentucky.

aphylla Am. Monthly Mag. Crit. Rev. 4:40. 1818, descr.; Spreng. Neue Entdeck. 1:145. 1820, descr., non Lour. (1790). Indiana, Kentucky, Illinois=? C. glomerata Choisy (1841).

paradoxa Raf. Ann. Nat. Ann. Synop. 13. 1820, descr.; First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom. Indiana, Illinois, Kentucky=? Cuscuta glomerata Choisy (1841)

CYLIDIUM Raf. Am. Monthly Mag. Crit. Rev. 4:191. 1819, nom. Quid.?

\*DACTYLEPIS Raf. Fl. Tellur. 4:125. 1836 [1838], descr. (Type Cuscuta [americana] sensu Lunan, e Jamaica) = Cuscuta Linn.

\*DARLUCA Raf. New Fl. N. Am. 4:55. 1836 [1838], descr.; Good Book 47. 1840, non Darluca Raf. (1820) =? Evolvulus Linn.

prostrata Raf. op. cit. 56, descr.; Aut. Bot. 21. 1840, nom. Florida.

#DECALOBA Raf. Fl. Tellur. 4:76. 1836 [1838], descr., subg. Modesta Raf.=Ipomoea Linn.

†DIATREMA Raf. Herb. Raf. 80. 1833, descr.; Fl. Tellur. 4:72. 1836 [1838], descr.=Ipomoea Linn. alba Raf. Fl. Tellur. 4:72. 1836 [1838], descr. "American, figured by Dillen."

muricata Raf. 1.c., nom. [Ipomoea muricata Cav.]. Mexico. purpurea Raf. I.c., descr. [Convolvulus purpureus Linn.]. Tropical America=Ipomoea purpurea (Linn.) Roth. \*trichocarpa Raf. Herb. Raf. 80. 1833, nom. (Ipomoea tricho-

carpa Ell.). Alabama, Florida.
\*DIATREMIS Raf. Ann. Gén. Sci. Phys. 8:271. 1821, descr. (Convolvulus nil Linn.) = Pharbitis Choisy (1833) = Ipomoea Linn.

\*DICONDRA Raf. Fl. Tellur. 4:88. 1836 [1838], nom., sphalm.= Dichondra J. R. & G. Forst. (1776).

DISTIMAKE Raf. Fl. Tellur. 4:82. 1836 [1838], descr.= Ipomoea Linn.

glaber Raf. 1.c., descr. (Convolvulus glaber Aubl. Hist. Pl. Guian. 1:138. t. 53. 1775). Guiana = Ipomoea glabra (Aubl.)

**DITEREIA** Raf. Fl. Tellur. 4:84. 1836 [1838]. descr. = Evolvulus Linn.

parviflora Raf. l.c., descr. (Evolvulus latifolius Ker-Gawl. Bot. Reg. 5: t. 401. 1819). Brazil.

DOXEMA Raf. Fl. Tellur. 4:75. 1836 [1838], descr.=Quamoclit Moench (1794).

sanguinea Raf. I.c., nom. (Ipomoea sanguinea Vahl; Ker-Gawl. Bot. Reg. 1: t. 9. 1815). West Indies.

EMULINA Raf. Fl. Tellur. 4:81. 1836 [1838], descr.=Jacque-

montia Choisy (1833).

parviflora Raf. l.c., descr. (Convolvulus parviflorus Lam.).

West Indies=Jacquemontia verticillata (Linn.) Urb.

ERONEMA Raf. Fl. Tellur. 4:125. 1836 [1838], descr.=Cuscuta

Linn.

ERONEMA (continued).

robinsoni Raf. 1.c., descr. (Cuscuta sp. Lunan, Hort. Jamaic. 1:265. 1814, sub C. americana). Jamaica = Cuscuta americana Linn.

EURYLOMA Raf. Fl. Tellur. 4:75. 1836 [1838], descr., non D. Don (1834) = Calonyction Choisy (1833)

grandiflora Raf. 1.c., nom. (Convolvulus grandiflorus Linn. f.).

India=Calonyction album (Linn.) House.

latiflora Raf. l.c., descr. (Convolvulus latiflorus Desr.;

Ipomoea latiflora Roem. & Schult.; Lindl. Bot. Reg. 11:

t. 889. 1825; I. grandiflora sensu Andr. Bot. Repos. 6:

t. 403. 1804). West Indies=Calonyction aculeatum (Linn.) House.

leucantha Raf. 1.c., descr. (Convolvulus leucanthus Sm.; Ipomoea leucantha Jacq.; Scop. Del. Fl. Faun. Insubr. 2: t. 4. 1786). South America.

EVOLVULUS Linn.

cuneifolius Raf. Fl. Tellur. 4:82. 1836 [1838], descr. (sphalm. "cnneifolius"); New Fl. N. Am. 4:56. 1836 [1838], descr. New Jersey=Stylisma pickeringii (M. A. Curtis) A. Gray (Breweria pickeringii A. Gray).

**EXALLOSIS** Raf. Fl. Tellur. 4:83. 1836 [1838], descr.=

Ipomoea Linn.

biflora Raf. 1.c., descr. (Ipomoea biflora Pers.; Convolvulus biflorus Linn.). China = ? Ipomoea hardwickii (Spreng.) Hemsl. (Aniseia calycina Choisy).

EXOCROA Raf. Fl. Tellur. 4:80. 1836 [1838], descr.=Ipomoea

Linn.

egyptiaca Raf. 1.c., descr. (Convolvulus cairicus Linn.; C. aegyptius Linn.; Ipomoea palmata Forsk.). Egypt=Ipomoea cairica (Linn.) Sweet.

#EXOSTREPS Raf. Tellur. 4:70. 1836 [1838], nom., nota, subgen. Sanilum Raf. (Type Convolvulus parviflorus Lam.)=Jacquemontia Choisy (1833).

FRAXIMA Raf. Fl. Tellur. 4:83. 1836 [1838], descr.=Ipomoea

ebracteata Raf. 1.c., nom. (Convolvulus ebracteatus Desr.). Tropical America=Ipomoea ebracteata (Desr.) Choisy.

mindanensis Raf. l.c., nom. (Convolvulus sphaerostigma Cav.).

Mexico (haud Philippines) = Jacquemontia hirsuta Choisy = J. sphaerostigma (Cav.) Rusby. quinquefolia Raf. 1.c., nom. (Convolvulus quinquefolius

Linn.)=Ipomoea quinquefolia Linn. Tropical America.

sagittifolia Raf. 1.c., nom. (Convolvulus sagittifolius Michx.). North America=Ipomoea sagittata Poir.

sherardi Raf. 1.c., nom. (Calystegia paradoxa Pursh). Virginia or Carolina=Ípomoea?

tridentata Raf. 1.c., nom. (Convolvulus tridentatus Linn.). Indo-Malaysia=Ipomoea tridentata (Linn.) Roth. umbellata Raf. 1.c., nom. (Convolvulus umbellatus Linn.).

Pantropic=Merremia umbellata (Linn.) Hall. f.

#GOMPHIPUS Raf. Fl. Tellur. 4:76. 1836 [1838], descr. subgen. Modesta Raf. (Type Modesta setosa Raf.; Ipomoea setosa Ker-Gawl. Bot. Reg. 4: t. 335. 1818). Brazil= Calonyction Choisy (1833).
#GOMPHULA Raf. Fl. Tellur. 4:77. 1836 [1838], descr., sub-

gen. Bonanox Raf. (Bonanox muricata Raf.; Convolvulus

muricatus Linn.) = Calonyction Choisy (1833).

GYNOISIA Raf. Fl. Tellur. 4:75. 1836 [1838], descr.=Ipomoea Linn.

carolina Raf. 1.c., descr. (Convolvulus carolinus Linn.; Ipomoea carolina Pursh; I. trichocarpa Ell.). Southeastern United States=Ipomoea trichocarpa Ell. (Ipomoea commutata Roem. & Schult.

HEMIDIA Raf. Am. Monthly Mag. Crit. Rev. 4:191. 1819, nom.=Ipomoea Linn. vel Convolvulus Linn.

#HEMILASIS Raf. Fl. Tellur. 4:74. 1836 [1838], descr., subgen, Ipomoea Linn. (Type Ipomoea heterophylla Ortega); New Fl. N. Am. 4:74. 1836 [1838], nom., nota=Ipomoea Linn.

IDALIA Raf. Fl. Tellur. 4:76. 1836 [1838], descr.=Convolvulus Linn.

albiflora Raf. op. cit. 77, descr. (Convolvulus elongatus Willd.;

Ker-Gawl. Bot. Reg. 6: t. 498. 1820). Canary Islands.

IPOMEA All.; Raf. Fl. Ludovic. 47. 1817, nom.; New Fl. N. Am. 4:57. 1836 [1838], descr.=Ipomoea Linn.

\*avicularis Raf. Fl. Ludovic. 47. 1817, descr. ("Ypomaea hedoerifolia" Rob. Voy. Louis. 3:402. 1807). Louisiana.

\*horsfalia Raf. Fl. Tellur. 2:12. 1836 [1837], nom. sub Colledona Raf. Fl. Tellur. 2:12. 1845. India.

Coiladena Raf.=Ipomoea horsfalliae Hook. India.

\*humilis Raf. New Fl. N. Am. 4:57. 1836 [1838], descr. Southern Florida and Cuba.

IPOMOEA Linn.

avicularis Raf. ex Jacks\*. Ind. Kew. 1:1223. 1893 (Ipomea avicularis Raf.). Louisiana.

humilis Raf. ex Jacks\*. l.c. (Ipomea humilis Raf.). ISYPUS Raf. Fl. Tellur. 4:73. 1836 [1838], descr.=Ipomoea Linn.

ochraceus Raf. 1.c., descr. (Convolvulus ochraceus Lindl. Bot. Reg. 13: t. 1060. 1827). West Africa=Ipomoea ochracea (Lindl.) G. Don. \*KADARAS Raf. Fl. Tellur. 4:88. 1836 [1838], nom. sub Cus-

cutaria Raf. = Kadurias Raf. op. cit. 91 = Cuscuta Linn.

KADULA Raf. Fl. Tellur. 4:88, nom., 90, descr., 1836 [1838] = Cuscuta Linn.

corymbosa Raf. 1.c. 90, nom. ut "R." corymbosa (Cuscuta corymbosa Ruiz & Pavon, Fl. Peruv. 1:69. t. 115. 1794). Peru.

KADURIAS Raf. Fl. Tellur. 4:88, nom., 91, descr., 1836 [1838] = Cuscuta Linn.

reflexa Raf. 1.c., 91, nom. (Cuscuta reflexa Roxb. Pl. Coromand. 2:3. t. 104. 1798). India—Cuscuta reflexa Roxb. #KEMOPSIS Raf. Fl. Tellur. 4:74. 1836 [1838], descr. subgen.

Ipomoea Linn. (Type, Ipomoea hederifolia Linn.). West

KETHOSIA Raf. Fl. Tellur. 4:78. 1836 [1838], descr.=Hewit-

tia Wight & Arn. (1837).

involucrata Raf. l.c., descr. (Convolvulus involucratus sensu Edwards, Bot. Reg. 4: t. 318. 1818, non Willd.). Africa, Mauritius=Hewittia sublobata (Linn. f.). O. Ktze. (H. bicolor Wight & Arn.).

KOLOFONIA Raf. Fl. Tellur. 4:73. 1836 [1838], descr.=

Ipomoea Linn.

albinervia Raf. 1.c., descr. (Convolvulus albivenius Lindl. Bot. Reg. 13: t. 1116. 1827). South Africa=Ipomoea albivenia (Lindl.) Sweet. #LACARA Raf. Fl. Tellur. 4:70. 1836 [1838], descr., subgen.

Convolvulus Linn.

capitata Raf. ex Jacks\*. Ind. Kew. 2:17. 1894 (Convolvulus capitatus Vahl). India=Argyreia capitata (Vahl) Choisy. saxatilis Raf. ex Jacks\*. l.c. (Convolvulus saxatilis Vahl). Mediterranean Region=C. lanuginosus Desr. scabra Raf. ex Jacks\*. l.c. (Convolvulus capitatus Raf., non

Vahl). Louisiana.

subtriloba Raf. ex Jacks\*. l.c. (Convolvulus "subtrilobus").

An C. sublobatus Linn. f.?

villosa Raf. ex Jacks\*. 1.c. (Convolvulus villosus Pers.). West Indies=Jacquemontia tamnifolia (Linn.) Griesb.

\*LARIOSPERMUM Raf. Ann. Gén. Sci. Phys. 8:271. 1821, descr. (Convolvulus "lariospermus," sphalm.=C. lasiosper-mus Vis.). Africa=Ipomoea Linn.

LATRIENDA Raf. Fl. Tellur. 4:81. 1836 [1838], descr.= Ipomoea Linn.

brasiliensis Raf. 1.c., nom. (Convolvulus brasiliensis Linn.). Brazil=Ipomoea pes-caprae (Linn.) Roth.

imperati Raf. 1.c., nom. (Convolvulus imperati Vahl). Pantropic=Ipomoea stolonifera (Cyrill.) Poir.

multiflora Raf. l.c., nom. (Convolvulus multiflorus Mill.).
Tropical America=Merremia umbellata (Linn.) Hall. f.

palmata Raf. 1.c., nom. (Convolvulus palmatus Mill.). Tropical America = Merremia quinquefolia (Linn.) Hall. f. soldanella Raf. 1.c., nom. (Convolvulus soldanella Linn.).

Europe=Calystegia soldanella (Linn.) R. Br.

**LEPIMENES** Raf. Fl. Tellur. 4:91. 1836 [1838], descr.=Cuscuta Linn.

epithymum Raf. 1.c., descr. (Cuscuta epithymum Murr.; C. europea sensu Lam.). Northern Europe=C. epithymum Murr. (1774).

\*LETSOMA Raf. Sylva Tellur. 131. 1838, nom. sub Amphione splendens Raf.=Lettsomia Roxb. (1814, 1832).

LIZERON Raf. Fl. Tellur. 4:70. 1836 [1838], descr. subgen. Convolvulus Linn. (Type Convolvulus arvensis Linn.)= Convolvulus Linn.

arvensis Raf. ex Jacks\*. Ind. Kew. 2:101. 1894 (Convolvulus arvensis Linn.). Eurasia.

chinensis Raf. ex Jacks\*. l.c. (Convolvulus chinensis Ker-Gawl.). China=C. arvensis Linn. persicus Raf. ex Jacks\*. 1.c. (Convolvulus persicus Linn.).

Asia Minor, Persia. tricolor Raf. ex Jacks\*. 1.c. (Convolvulus tricolor Linn.).

Southern Europe.

verticillatus Raf. ex Jacks\*. (Convolvulus verticillatus Linn.). West Indies=Jacquemontia verticillata (Linn.) Urb. (Convolvulus micranthus Roem. & Schult.).

**LOBAKE** Raf. Fl. Tellur. 4:81. 1836 [1838], descr.=Jacque-

montia Choisy (1833).

guyanensis Raf. l.c., descr. (Convolvulus guianensis Aubl.).

Guiana=Jacquemontia guianensis (Aubl.) Meissn. (as guyanensis).

\* #LOMALIX Raf. Fl. Tellur. 4:74. 1836 [1838], descr. subgen. Ipomoea Linn. (Type Convolvulus oenotheroides Linn. f.)= Ipomoea Linn.

**#LOMIPTIA** Raf. Fl. Tellur. 4:74. 1836 [1838], descr., subgen. Quamoclita Raf. (Type Ipomoea bracteata Cav.)=Ipomoea Linn.

MELASCUS Raf. Fl. Tellur. 4:80. 1836 [1838], descr.= Calonyction Choisy (1833).

latifolius Raf. l.c., descr. (Convolvulus latiflorus Desr.). South America = Calonyction aculeatum (Linn.) House.

#MELASIA Raf. Fl. Tellur. 4:74. 1836 [1838], descr., subgen. Quamoclita Raf. (Type Ipomoea tuberosa Linn.)= Operculina S. Manso (1836).

#MICROLA Raf. Fl. Tellur. 4:84. 1836 [1838], descr. subgen. Thyella Raf. (Type Ipomoea tamnifolia Linn.) = Jacquemontia Choisy (1833).

MILHANIA Raf. Fl. Tellur. 4:71. 1836 [1838], descr., non Neck. (1790) (Calystegia R. Br.) = Calystegia R. Br. (1810),

nom. conserv. (Volvulus Medic., 1791).
bracteata Raf. ex Jacks\*. Ind. Kew. 2:236. 1894 [Convolvulus bracteatus Vahl]. India=Hewittia sublobata (Linn. f.) O. Kuntze.

catesbiana Raf. ex Jacks\*. 1.c. (Calystegia catesbiana Pursh).

involucrata Raf. ex Jacks\*. 1.c. [Convolvulus involucratus Ker-Gawl.]. India=Hewittia sublobata (Linn. f.) O. Kuntze.

mutabilis Raf. ex Jacks\*. 1.c. (Calystegia mutabilis Raf.). Louisiana.

pentaphyla Raf. ex Jacks\*. l.c. [Convolvulus pentaphyllus Tropical America=Ipomoea pentaphylla Jacq. Linn.]. Tropical America=Ipomoea pentaphylla Jacq. riparia Raf. ex Jacks\*. l.c. (Calystegia riparia Raf.). North

America. sepium Raf. ex Jacks\*. 1.c. (Calystegia sepium R. Br.). North

Temperate Zone.

spithamea Raf. ex Jacks\*. l.c. (Calystegia spithamaea Pursh). Eastern North America = Convolvulus spithamaeus Linn. villosa Raf. ex Jacks\*. 1.c. (Calystegia villosa Raf.). Loui-

siana.

\*MODECA Raf. Fl. Tellur. 2:13. 1836 [1837], descr., sub Coiladena Raf. (Type Ipomoea paniculata R. Br., Convolvulus paniculatus Linn.) = Modesta Raf. = Ipomoea Linn. MODESTA Raf. Fl. Tellur. 4:75. 1836 [1838], descr.=Ipo-

moea Linn.

congesta Raf. op. cit. 76, descr., sub Decaloba Raf. (Ipomoea platensis Ker-Gawl. Bot. Reg. 4: t. 333. 1818). Argentina=Ipomoea digitata Linn.

coriacea Raf. 1.c., descr. (Convolvulus hypocrateriformis Desr.). India=Rivea hypocrateriformis (Desr.) Lam.

insignis Raf. 1.c., descr. (Ipomoea insignis Andr. Bot. Repos. 10: t. 636. 1811; Ker-Gawl. Bot. Reg. 1: t. 75. 1815). India=Ipomoea digitata Linn.

macrorhiza Raf. 1.c., nom. (Ipomoea macrorhiza Michx.). North America.

mutabilis Raf. l.c., descr., sub Decaloba (Ipomoea mutabilis Ker-Gawl. Bot. Reg. 1: t. 39. 1815). South America=Ipomoea acuminata (Vahl) Roem. & Schult.

paniculata Raf. op. cit. 75, descr. (Convolvulus paniculatus Linn.; Ipomoea paniculata R. Br.; I. mauritiana Jacq.).

India=Ipomoea digitata Linn.

setosa Raf. op. cit. 76, descr., sub Gomphipus Raf. (Ipomoea setosa Ker-Gawl. Bot. Reg. 4: t. 335. 1818). Brazil= Calonyction setosum (Ker-Gawl.) Hallier f.

tuberculata Raf. 1.c., descr., sub Caulotulis Raf. (Ipomoea tuberculata Ker-Gawl. Bot. Reg. 2: t. 86. 1816; Convolvulus digitatus Roxb.). India=Ipomoea dasysperma Jacq.
#MUNDAVALIS Raf. Fl. Tellur. 4:77. 1836 [1838], descr.,
subgen. Bonanox Raf. = Calonyction Choisy (1833).

\*MURUEVA Raf. Ann. Gén. Sci. Phys. 8:270, 272. 1821, nom.=
Maireria Scop. (1777)=Maripa Aubl. (1775).

NEMANTHERA Raf. Fl. Tellur. 4:80. 1836 [1838], descr.=

Ipomoea Linn. vel Merremia Dennst.

bufalina Raf. 1.c., descr. (Convolvulus bufalinus Lour.). Indo-China (Annam); see Merrill, Trans. Am. Philos. Soc. II.

NEMEPIS Raf. Fl. Tellur. 4:91. 1836 [1838], descr.=Cuscuta Linn.

africana Raf. 1.c., descr. (Cuscuta africana Willd.; C. americana sensu Thunb., non Linn.). South Africa=Cuscuta africana Willd. (1798).

americana Raf. 1.c., descr. (Cuscuta americana Linn.). North

America.

\*brownei Raf. op. cit. 125, sub. Dactylepis Raf., descr. (Cuscuta [americana] sensu Lunan). Jamaica=Cuscuta americana Linn.

odorata Raf. op. cit. 91, descr. (Cuscuta odorata Ruiz & Pavon, Fl. Peruv. 1:69. t. 105. 1798). Peru. prolifera Raf. 1.c., descr. (C. americana auct.; C. surinamensis Schilling). South America (Surinam) = Cuscuta americana Linn.

NEMOSTIMA Raf. Fl. Tellur. 4:82. 1836 [1838], descr.= Convolvulus Linn.

canariensis Raf. 1.c., descr. (Convolvulus canariensis Linn.). Canary Islands.

cantabrica Raf. I.c., descr., sphalm. "camtabrica" (Convolvulus cantabrica Linn.). Spain, Morocco.
hystrix Raf. ex Jacks\*. Ind. Kew. 2:303. 1894 (Convolvulus

hystrix Vahl). Egypt, Arabia. lanata Raf. ex Jacks\*. l.c. (Convolvulus lanatus Vahl). Per-

sia=C. sericeus Burm. f.

lineata Raf. ex Jacks\*. 1.c. (Convolvulus lineatus Linn.).

Southern Europe.

spicaefolia Raf. ex Jacks\*. l.c. (Convolvulus spicaefolius
Desr.). Southern Europe = C. lineatus Linn.

NEORTHOSIS Raf. Fl. Tellur. 4:125. 1836 [1838], descr.= Quamoclit Moench (1794).

coccinea Raf. l.c., nom. (Ipomoea coccinea sensu Lunan [=1. coccinea Linn.]). Jamaica=Quamoclit coccinea (Linn.) Moench.

tigrina Raf. 1.c., nom. (Ipomoea coccinea sensu Lunan [var. fl. aurantiacis]). Jamaica = Quamoclit coccinea (Linn.)

#OCRIPHA Raf. Fl. Tellur. 4:84. 1836 [1838], descr., subgen. Thyella Raf. (Type Convolvulus obtusifolius Michx.) =Ipomoea Linn.

= Ipomoea Linn.

ONISTIS Raf. New Fl. N. Am. 4:63. 1836 [1838], descr. Good Book 47. 1840, nom. Quid?

longifolia Raf. New Fl. 1.c., descr. Florida.

ORNITHOSPERMA Raf. Fl. Ludovic. 47, descr., sect. Ipomoea Linn.; op. cit. 149, descr. ut gen. 1817; Am. Monthly Mag. Crit. Rev. 4:191. 1819, nom.; Ann. Gén. Sci. Phys. 8:272. 1821, nom., nota; Fl. Tellur. 4:72. 1836 [1838], descr.= Inomoea Linn. Ipomoea Linn.

autumnalis Raf. Fl. Tellur. 4:72. 1836 [1838], descr. (Ipomea avicularis Raf.). Louisiana=seq.

serotina Raf. Fl. Ludovic. 149. 1817, descr. (Ipomea avicularis Raf.). Louisiana.

PENTAKE Raf. Fl. Tellur. 4:90. 1836 [1838], descr.=Cuscuta

chinense Raf. 1.c., nom. (Cuscuta chinensis Lam.). China. #PENTANTHUS Raf. Fl. Tellur. 4:70. 1836 [1838], descr., subgen. Convolvulus Linn. (Type Convolvulus pentanthus Jacq.) = Jacquemontia Choisy (1833).
violaceus Raf. ex Jacks\*. Ind. Kew. 2:460. 1894 (Convolvulus

violaceus Vahl). Tropical America=Jacquemontia violacea (Vahl) Choisy.

#PERIEXA Raf. Fl. Tellur. 4:82. 1836 [1838], descr., subgen. Nemostima Raf. (Type Convolvulus lanatus Vahl)=

Convolvulus Linn. PERIPHAS Raf. Fl. Tellur. 4:85. 1836 [1838], descr.=Con-

volvulus Linn. pannifolius Raf. l.c., descr. (Convolvulus pannifolius Ait.; Ker-Gawl. Bot. Reg. 3: t. 222. 1817). Canary Islands. #PHAESTIS Raf. Fl. Tellur. 4:71. 1836 [1838], descr., sub-

gen. Tirtalia Raf. (Type Convolvulus domingensis Desr.)= Ipomoea Linn.

PHARBITIS Choisy=Ipomoea Linn.

quinquefolia Raf. Fl. Tellur. 4:81. 1836 [1838], descr. (Convolvulus quinquefolius sensu Mill.). Mexico.
\*scamonia Raf. Fl. Tellur. 4:72. 1836 [1838], nom.=Convolvulus scammonia Linn. Asia Minor.

PLESIAGOPUS Raf. Fl. Tellur. 4:78. 1836 [1838], descr.= Ipomoea Linn.

PLESIAGOPUS (continued).

brasiliensis Raf. 1.c., descr. (Convolvulus brasiliensis Linn.; Convolvulus marinus catharticus Plumier, Descr. Pl. Am. 89. t. 104. 1693). Brazil=Ipomoea pes-caprae (Linn.) Roth. cuneifolia Raf. 1.c., descr. ("Ip[omea] do Lam.")=Ipomoea

pes-caprae (Linn.) Roth.

maritima Raf. 1.c., descr. (Ipomoea maritima sensu Ker-Gawl. Bot. Reg. 4: t. 319. 1818). Tropical seashores= Ipomoea pes-caprae (Linn.) Roth.

rotundifolia Raf. I.c., descr. (Ipomoea maritima R. Br.). Australia=Ipomoea pes-caprae (Linn.) Roth.

sovana Raf. 1.c., descr. (Convolvulus pes-caprae Linn.; Shovanna adamboe Rheede, Hort. Malabar. 11:117. t. Convolvulus marinus Rumph. Herb. Amb. 5:433. t. 159. f. 1. 1747). India, Moluccas=Ipomoea pes-caprae (Linn.) Roth.

PLESILIA Raf. Fl. Tellur. 4:83. 1836 [1838], nom. (Evolvulus cuneifolius Raf.); New Fl. N. Am. 4:56. 1836 [1838], nom. subnud. (Evolvulus cuneifolius Raf.) = Stylisma Raf.

(1825) = Breweria R. Br. (1810).

\*cuneifolia Raf. Aut. Bot. 22. 1840, nom. [Evolvulus cuneifolius Raf. Fl. Tellur. 4:82. 1838, sphalm. "cnneifolius"].

New Jersey = Stylisma pickeringii (Curtis) A. Gray.

PODALETRA Raf. Fl. Tellur. 4:79. 1836 [1838], descr.=Convolvulus Linn.

farinosa Raf. 1.c., descr. (Convolvulus farinosus Linn.). Tropical Africa.

\*PODOSTIMA Raf. New Fl. N. Am. 4:63. 1836 [1838], nom. nov. Stylisma Raf.=Breweria R. Br. (1810).

PULLIS Raf. Fl. Tellur. 4:74. 1836 [1838], descr., subgen. Ipomoea Linn. (Type Ipomoea hepaticifolia Linn.)=Ipomoea Linn.

QUAMOCLITA Raf. Fl. Tellur. 4:74. 1836 [1838], descr.= Quamoclit Moench (1794).

bipinnata Raf. 1.c., nom. Hab.? coccinea Raf. 1.c., nom. (Ipomoea coccinea Linn.). Tropical America = Quamoclit coccinea (Linn.) Moench.

cordata Raf. I.c., nom. Hab.? denticulata Raf. 1.c., nom. (Ipomoea denticulata R. Br.). Indo-Malaysia = Merremia sp. hybrida Raf. 1.c., nom. Hab.?

lacunosa Raf. l.c., nom. (Ipomoea lacunosa Linn.). North America.

litoralis Raf. 1.c., nom. (Ipomoea littoralis Blume). Indo-

Malaysia=Ipomoea gracilis R. Br. multifida Raf. New Fl. N. Am. 4:57. 1836 [1838], descr., cult.

\*pinnata Raf. 1.c., nom. [Quamoclit pennata Boj.]. Tropical America.

rubra Raf. Fl. Tellur. 4:74. 1836 [1838], nom. (Ipomoea rubra Murr.). North America = Gilia coronopifolia Pers. (Polemoniaceae).

solanifolia Raf. 1.c., nom. (Ipomoea solanifolia Linn.). West Indies.

\*QUAMOCTITA Raf. New Fl. N. Am. 4:57. 1836 [1838], nom., sphalm.=Quamoclita Raf.=Quamoclit Moench (1794).

RHODOXYLON Raf. Fl. Tellur. 4:79. 1836 [1838], descr.= Convolvulus Linn.

floridum Raf. op. cit. 80, nom. (Convolvulus floridus Linn.). Teneriffe.

scoparium Raf. 1.c., nom. (Convolvulus scoparius Linn.). Teneriffe.

**SAMUDRA** Raf. Fl. Tellur. **4:72**. 1836 [1838], descr.=Argyreia Lour. (1790).

speciosa Raf. 1.c., descr. (Convolvulus speciosus Willd.; Ipomoea speciosa Pers.; Convolvulus nervosus Burm. f. Fl. Ind. 48. t. 20. f. 1. 1768; Samudra-Stjogam Rheede Hort. Malabar. 11:125. t. 61. 1692; Ipomoea speciosa Pers.; Hook. Bot. Mag. 51. t. 2446. 1824). India=Argyreia nervosa (Burm. f.) Boj.

SANILUM Raf. Fl. Tellur. 4:70. 1836 [1838], descr.=Hewittia Wight & Arn. (1837).

bicolor Raf. l.c., nom. (Convolvulus bicolor Vahl). India= Hewittia sublobata (Linn. f.) O. Kuntze.

bracteatum Raf. 1.c., nom. (Convolvulus bracteatus Vahl). India=Hewittia sublobata (Linn. f.) O. Kuntze.

copticum Raf. l.c., nom. (Convolvulus copticus Linn.). Tropical Asia and Africa=Ipomoea coptica (Linn.) Roth. (I. dissecta Willd.).

humile Raf. 1.c., nom. (Convolvulus humilis Jacq.). Mediterranean region.

parviflorum Raf. ex Jacks\*. Ind. Kew. 2:798. 1895 (Convolvulus parviflorus Vahl). Tropical Asia and Africa.

#SCADIARA Raf. Fl. Tellur. 4:70. 1836 [1838], descr., subgen. Convolvulus Linn. (Type Convolvulus ruber Vahl) = Calystegia R. Br. (1810), nom. conserv. (Volvulus Medic., 1791).

\*SCAMMONEA Raf. Ann. Gén. Sci. Phys. 8:271. 1821, descr. [Convolvulus scammonia Linn.] = Convolvulus Linn.

#SCAMONIA Raf. Fl. Tellur. 4:72. 1836 [1838], descr. subgen. Pharbitis Choisy (Type Pharbitis scamonia Raf. [Convolvulus scammonia Linn.] = Convolvulus Linn.

#SCIADIARA Raf. Fl. Tellur. 4:70. 1836 [1838], descr. (Types Convolvulus cneorum Linn., C. ruber Vahl) = Convolvulus

Linn. #SERICOSPERMA Raf. Fl. Tellur. 4:74. 1836 [1838], descr., subgen. Ipomoea Linn. (Type Convolvulus sericeus Burm.

f.) = Convolvulus Linn. STOMADENA Raf. Fl. Tellur. 2:12. 1836 [1837], descr.=Ipomoea Linn.

violacea Raf. l.c., descr. (Ipomoea aitoni Lindl. Bot. Reg. 21: t. 1794. 1835). Florida.

†STYLISMA Raf. Am. Monthly Mag. Crit. Rev. 3:101. 1818, descr. (Convolvulus tenellus Lam.); op. cit. 4:191. 1819, nom.; Jour. Phys. Chim. Hist. Nat. 89:258. 1819, nom. nom., 272, descr., 1821 (Convolvulus tenellus Lam.); Neogen. 2. 1825, descr. (Convolvulus tenellus I am.); Neogen. 2. 1825, descr. (Convolvulus tenellus Lam.; C. aquaticus Walt.); New Fl. N. Am. 4:54. 1836 [1838], descr.; Fl. Tellur. 4:83. 1836 [1838], descr. Good Book 47. 1840, nom.=Breweria R. Br. (1810).

aquatica Raf. Fl. Tellur. 4:83. 1836 [1838], nom. (Convol-vulus aquaticus Walt.). Southeastern United States=Brew-eria aquatica (Walt.) A. Gray (Stylisma aquatica Chapm.).

elliptica Raf. New Fl. N. Am. 4:55. 1836 [1838], descr.; Aut. Bot. 22. 1840, nom. Georgia, Alabama.

heterophyla Raf. New Fl. N. Am. 4:54. 1836 [1838], descr.,

Aut. Bot. 22. 1840, nom. Georgia, Florida. peduncularis Raf. op. cit. 55, descr.; Aut. Bot. 1.c., nom.

Alabama, Florida.

sherardi Raf. New Fl. N. Am. 4:55. 1836 [1838], nom. (Convolvulus sherardi Pursh); Fl. Tellur. 4:83. 1836 [1838], nom. (Convolvulus sherardi Pursh). Carolina = Breweria humistrata (Walt.) A. Gray (Stylisma humistrata Chapm.; Evolvulus ? sherardi Choisy).

\*trichosanthes Raf. New Fl. N. Am. I.c., nom. sub S. peduncularis Raf. (Convolvulus trichosanthes Michx.). Southeastern United States=Breweria humistrata (Walt.)

A. Gray (Stylisma humistrata Chapm.).

tenella Raf. Herb. Raf. 48. 1833, nom. (Convolvulus tenellus Lam.); Fl. Tellur. 4:83. 1836 [1838], nom. (Convolvulus tenellus Lam.). Southeastern United States=praec.

SYMETHUS Raf. Fl. Tellur. 4:83. 1836 [1838], descr.=

Convolvulus Linn.

siculus Raf. 1.c., descr. (Convolvulus siculus Linn.; Ker-Gawl. Bot. Reg. 6: t. 445. 1820). Sicily.

#TALANELIS Raf. Fl. Tellur. 4:70. 1836 [1838], descr., subgen. Convolvulus Linn.=Aniseia Choisy (1833).

medium Raf. ex Jacks\*. Ind. Kew. 2:1032. 1895 (Convolvulus medium Linn.). Indo-Malaysia=Aniseia medium (Linn.) Choisy.

TEREIETRA Raf. Fl. Tellur. 4:124. 1836 [1838], descr.= Calonyction Choisy (1833).

violacea Raf. op. cit. 125, nom. (Ipomoea violacea sensu Lunan). Jamaica=Calonyction tuba (Schlecht.) G. Don. THYELLA Raf. Fl. Tellur. 4:84. 1836 [1838], descr.=Ipomoea

Linn. obtusiloba Raf. 1.c., descr. (Convolvulus obtusilobus Michx.). Southeastern United States=Ipomoea stolonifera (Cyrill.)

tamnifolia Raf. 1.c., descr. (Ipomoea tamnifolia Linn.). South-eastern United States and tropical America=Jacquemontia

tamnifolia (Linn.) Griseb. TIRTALIA Raf. Fl. Tellur. 4:71. 1836 [1838], descr. = Ipomoea Linn.

anceps Raf. ex Jacks\*. Ind. Kew. 2:1083. 1893 (Convolrulus anceps Linn.) = Operculina turpethum (Linn.) S. Manso. Pantropic.

angustifolia Raf. Fl. Tellur. 1.c., nom. (Convolvulus angustifolius Desr.) = Merremia hastata (Desr.) Hall. f. Old World tropics.

dissecta Raf. ex Jacks\*. 1.c. (Convolvulus dissectus Jacq.) = Ipomoea sinuata Ortega. Tropical America.
domingensis Raf. ex Jacks\*. 1.c. (Convolvulus domingensis

Desr.)=Rivea corymbosa (Linn.) Hall. f. West Indies.
emarginata Raf. Fl. Tellur. l.c., nom. (Convolvulus emarginatus Vahl)—Incompany

natus Vahl) = Ipomoea martinicensis Mey. = Aniseia martini-

censis (Jacq.) Choisy.
filicaulis Raf. ex Jacks\*. l.c. (Convolvulus filicaulis Vahl) =
Merremia hastata (Desr.) Hall. f. Old World tropics. gemella Raf. ex Jacks\*. 1.c. (Convolvulus gemellus Burm. f.)

=Merremia gemella (Burm. f.) Hall. f. Indo-Malaysia. hispida Raf. ex Jacks\*. 1.c. (Convolvulus hispidus Vahl)= Îpomoea hispida (Vahl) Roem. & Schult. (Î. eriocarpa R. Br.). Indo-Malaysia.

macrothiza Raf. ex Jacks\*. 1.c. (Convolvulus macrothizus Linn.). West Indies=Ipomoea furcyensis Urb. (1902) (Ipomoea macrorrhizos R. & S., non I. macrorrhiza Michx.,

malabarica Raf. ex Jacks\*. l.c. (Convolvulus malabaricus Linn.) = Argyreia malabarica (Linn.) Choisy. India.

maxima Raf. Fl. Tellur. 1.c., nom. (Convolvulus maximus Linn. f.)=Ipomoea sepiaria Koen. Tropical Asia. pandurata Raf. ex Jacks\*. 1.c. (Convolvulus panduratus Linn.)

=Ipomoea pandurata (Linn.) Mey. Tropical America. quinquefolia Raf. ex Jacks\*. l.c. (Convolvulus quinquelobus

Vahl). Egypt, Asia=Ipomoea cairica (Linn.) Sweet.
sibirica Raf. Fl. Tellur. l.c., nom. (Convolvulus sibiricus
Linn.)=Ipomoea sibirica (Linn.) Pers. Siberia.

striata Raf. l.c., nom. (Convolvulus striatus Vahl)=Ipomoea

sepiaria Koen. Tropical Asia. triflora Raf. ex Jacks\*. l.c. (Convolvulus triflorus Vahl) = Ipomoea sepiaria Koen. Tropical Asia.

triquetra Raf. ex Jacks\*. l.c. (Convolvulus triquetrus Vell.) = Ipomoea batatoides Choisy. Brazil.
umbellata Raf. ex Jacks\*. l.c. (Convolvulus umbellatus Linn.)

umbeliata kai, ex Jacks\*. i.c. (Convolvalus umbellatus Linn.)

= Merremia umbellata (Linn.) Hall. f. Pantropic.
vitifolia Raf. ex Jacks\*. l.c. (Convolvalus vitifolius Linn.) =
Merremia vitifolia (Linn.) Hall. f. Indo-Malaysia.

TREMASPERMA Raf. Fl. Tellur. 4:124. 1836 [1838], descr.=
Calonyction Choisy (1833).
bonanox Raf. l.c., descr. (Ipomoea bona-nox sensu Lunan).
Iamaica—Calonyction acularium (Linn.) Hause.

Jamaica = Calonyction aculeatum (Linn.) House.

#TRICHIMA Raf. Fl. Tellur. 4:82. 1836 [1838], descr., subgen. Nemostima Raf. (Type Convolvulus hystrix Vahl)= Convolvulus Linn.

#TROXULA Raf. Fl. Tellur. 4:74. 1836 [1838], descr., subgen. Quamoclita Raf. (Type Convolvulus literalis Raf. sphalm.=C. littoralis Linn.) = Ipomoa Linn.
#TULOTROPIS Raf. Fl. Tellur. 4:74. 1836 [1838], descr., subgenes Raf. Fl. Tellur. 4:74. 18

gen. Quamoclita Raf. (Type Ipomoea verrucosa Ortega)= Ipomoea Linn.

TURBINA Raf. Fl. Tellur. 4:81. 1836 [1838], descr.=Rivea Choisy (1833).

corymbosa Raf. 1.c., nom. (Convolvulus corymbosus Linn.). Tropical America=Rivea corymbosa (Linn.) Hall. f. (Ipomoea sidaefolia Choisy; I. antillana Millsp.; I. corymbosa Roth; I. burmanni Choisy; I. domingensis House; Convolvulus domingensis Desr.; C. sidaefolius H.B.K.).

\*TURPETHUM Raf. Fl. Tellur. 4:71. 1836 [1838], descr.= Operculina Silva Manso (1836).

\*australe Raf. l.c., descr. (Ipomoea turpethum R. Br.). Australia, Tahiti = Operculina turpethum (Linn.) Silva Manso. \*indicum Raf. 1.c., descr. Convolvulus indicus alatus maximus Herm. Hort. Lugd. Bat. Cat. 177. t. 179. 1687; Ipomoea turpethum R. Br.; Ker-Gawl. Bot. Reg. 4: t. 279. 1818). India, Ceylon=Operculina turpethum (Linn.) Silva Manso.

TURPITHUM Raf. ex Jacks\*. Ind. Kew. 2:1138. 1895=Turpethum Raf. (1838) = Operculina Silva Manso (1836).

australe Raf. ex Jacks\*. 1.c.=Turpethum australe Raf.=

Operculina turpethum (Linn.) Silva Manso.

indicum Raf. ex Jacks\*. 1.c.=Turpethum indicum Raf.= Operculina turpethum (Linn.) Silva Manso.

## POLEMONIACEAE

BATANTHES Raf. Atl. Jour. 1:145. 1832, descr. = Gilia R. & P. agregata Raf. 1.c., nom. (Cantua aggregata Pursh). Northwestern United States=Gilia aggregata (Pursh) Spreng. longiflora Raf. 1.c., nom. (Cantua longiflora Torr.). Western

United States=Gilia longiflora (Torr.) G. Don.
pungens Raf. l.c., nom. (Cantua pungens Torr.). Western
United States=Gilia pungens (Torr.) Benth. (Leptodactylon pungens Nutt.).

BRICKELLIA Raf. Med. Repos. II. 5:353. 1808, nom. nov. Ipomopsis Michx. (sphalm. "Sponcopsis" Raf.); iter. Jour. Bot. (Paris) 2:172. 1809, nom. (sphalm. "Spogopsis" Raf.); Am. Monthly Mag. Crit. Rev. 4:191. 1819, nom. (Ipomopsis Michx.; Ipomeria Nutt.); Jour. Phys. Chim. Hist. Nat. 89:258. 1819 = Gilia Ruiz & Pavon (1794) (Ipomopsis Michx.; Ipomeria Nutt.),
DUPRATZIA Raf. Fl. Ludovic. 54. 1817, descr.=? Phlox

Linn.

scoparia Raf. 1.c., descr. (Balayeuse Rob. Voy. Louis. 3:420. 1807). Louisiana.

PHLOX Linn.

\*adpressa Raf. Herb. Raf. 62. 1833, nom. Kentucky or Illinois.

Rob. Voy. Louis. 3:379. 1807). Louisiana.

\*brevifolia Raf. Herb. Raf. 62. 1833, nom. Kentucky or Illi-

nois.

\*glomerata Raf. 1.c., 62, nom. Kentucky or Illinois. hybrida Raf. Med. Repos. II. 5:353. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. Central Atlantic United States. \*leiophyla Raf. Herb. Raf. 62. 1833, nom. Kentucky or Illi-

\*levigata Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom. Kentucky.

montana Raf. Med. Repos. II. 5:353. 1808, nom.; Jour. Bot. 2:173. 1809, nom. Central Atlantic United States.

\*rugosa Raf. I.c., nom. Kentucky or Illinois.
\*stenophylla Raf. I.c., nom. Kentucky or Illinois.
uniflora Raf. Fl. Ludovic. 47. 1817, descr. (Phlox 2, Rob. Voy. Louis. 3:404. 1807). Louisiana.

POLEMONIUM Linn.

quadriflorum Raf. Atl. Jour. 1:177. 1833, descr.; Herb. Raf. 22. 1833, descr. Texas=P. reptans Linn.

\*SPOGOPSIS Raf. Jour. Bot. (Paris) 2:172. 1809, nom., sphalm. sub Brickellia Raf.=Ipomopsis Michx. (1803)=Gilia Ruiz & Pavon (1794).

\*SPONCOPSIS Raf. Med. Repos. II. 5:353. 1808, nom., sphalm. sub Brickellia Raf.=praec.

# HYDROPHYLLACEAE

ASCLEIA Raf. Sylva Tellur. 53. 1838, descr. (Johnsonia Necker, 1790) = Hydrolea Linn. (1763), nom. conserv. (Nama Linn., 1753, non Linn. 1759).

mexicana Raf. l.c., descr. (Lycium capsulare Linn.). Mexico= Hydrolea capsularis (Linn.) Druce (H. cervantesii Brand). APNOREA Raf. Fl. Tellur. 3:74. 1836 [1837], descr.=

CAPNOREA Raf. Fl. Tellur. 3:74. 1836 [1837], descr.= Hesperochiron S. Wats. (1871), nom. conserv. (Capnorea Raf., 1837).

nana Raf. op. cit. 75, descr. (Nicotiana nana Lindl. Bot. Reg. 10: t. 833. 1824). Rocky Mountains or Oregon=Hesperochiron nanus (Lindl.) Greene.<sup>80</sup>
COHIBA Raf. Fl. Tellur. 3:75. 1836 [1837], descr.=Wigandia

H.B.K. (1818).
urens Raf. l.c., descr. (Nicotiana urens Linn.). West Indies=

Wigandia pruritiva Spreng. 1825 (Wigandia reflexa Brand, 1913; W. urens Urb. 1919, non Choisy 1833).

DECEMIUM Raf. Fl. Ludovic. 34. 1817, nom., nota sub Hydrophyllum? trilobum Raf.; Am. Monthly Mag. Crit. Rev. 4:207. 1819, nom.; Med. Fl. 2:215. 1830, nom., nota= Hydrophyllum Linn.

hirtum Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom. (Hydrophyllum, auct.); Med. Fl. 2:215. 1830, nom., nota (Hydrophyllum auct.). Southeastern to Central United

States=Hydrophyllum appendiculatum Michx. (Decemium appendiculatum Brand, 1913; Small, 1933).
†ENDIPLUS Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818, descr.; op. cit. 4:191, 207. 1819, nom.; Jour. Phys. Chim. Hist. Nat. 89:99. 1819, descr.; Isis von Oken 1820, 1: Lit.

Anz. 238. 1820, descr.=Phacelia Juss. (1789).

<sup>30</sup> See Brand, Pflanzenreich **59** (IV. 251):168. 1913 "H. nanus (Lindl.) Greene... se non generi Nicotiana, at cert. Solanaceis attribuenda est." Rydberg, Fl. Rocky Mts. 709. 1933, accepts it as Capnorea nana (Lindl.) Raf. of the Hydrophyllaceae. Idaho, Washington, Oregon. †ENDIPLUS (continued)

bifidus Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818, descr.

Pennsylvania=Phacelia bipinnatifida Michx.

phaceloides Raf. Jour. Phys. Chim. Hist. Nat. 89:99. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 238. 1820, descr. Pennsylvania (near Pittsburgh) = Phacelia bipinnatifida Michx

\*EUCODON Raf. Fl. Tellur. 4:88. 1836 [1838], nom. nov.

Codon Linn.

HETERYTA Raf. Med. Repos. II. 5:352. 1808, nom.; Jour. Bot. (Paris) 2:170. 1809, nom.=Phacelia Juss. (1789). polemonioides Raf. Il.cc., nom. (Polemonium dubium Linn.); A. Gray, Am. Jour. Sci. 40:228. 1841, nom. North America=Phacelia dubia (Linn.) Trel. (P. parviflora Pursh).

\*HYDROLA Raf. Aut. Bot. 34. 1840, nom.=seq.

\*caroliniana Raf. I.c., nom.=Hydrolea caroliniana Michx.
Eastern North America.

HYDROLEA Linn. (1763), nom. conserv. (Nama Linn., 1753,

non Linn. 1759).

latifolia Raf. Atl. Jour. 1:146. 1832, nom. (H. spinosa sensu Torr. Ann. Lyc. Nat. Hist. N. Y. 2:223. 1827, nom., nota). Canadian River? Prob.=H. ovata Nutt. (1833).

ovatifolia Raf. New Fl. N. Am. 4:64. 1836 [1838], descr. Aut. Bot. 34. 1840, nom. Arkansas = H. ovata Nutt. (1833). paniculata Raf. 11.cc., descr., nom. Arkansas=Hydrolea quadrivalvis Walt.

\*uniflora Raf. Aut. Bot. 34. 1840, descr. Louisiana (Hydrolea affinis A. Gray, 1867); see Fernald, Rhodora 46:56. 1944.

verticillata Raf. ex Jacks\*. Ind. Kew. 1:1185. 1893 (Hydrolia verticillata Raf.). Louisiana=? Hydrolea ovata Nutt.

HYDROLIA Thouars=Hydrolea Linn.

\*verticillata Raf. Fl. Ludovic. 51. 1817, descr. (Apocinée épineuse Rob. Voy. Louis. 3:411. 1807). Louisiana=? Hydrolea ovata Nutt. (1833).

\*HYDROPHYLUM Raf. Herb. Raf. 60. 1833, nom.=Hydrophyllum Linn.

\*maculatum Raf. 1.c., nom. Kentucky or Illinois.

\*quinatum Raf. op. cit. 80. 1833, nom. Kentucky or Illinois.

HYDROPHYLLUM Linn.

trilobum Raf. Fl. Ludovic. 33. 1817, descr. (Mouron 1 Rob. Voy. Louis. 3:376. 1807). Louisiana=Hydrophyllum appendiculatum Michx. (Decimum appendiculatum Brand, 1913; Small, 1933).

PHACELIA Juss.

\*ciliata Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824. nom. Kentucky.

\*STERISIA Raf. Fl. Tellur. 4:88. 1836 [1838], nom. sub. Cuscutaria Raf. [Steris Linn.] = Hydrolea Linn.

STEVOGTIA sensu Raf. Fl. Tellur. 4:70. 1836 [1838], non Neck. (1790) = Phacelia Juss. (1789).

platycarpos Raf. ex Jacks\*. Ind. Kew. 2:996. 1895 (Convolvulus platycarpus Cav.). Mexico=Phacelia platycarpa (Cav.) Spreng.

#### BORAGINACEAE

ACNADENA Raf. Sylva Tellur. 41. 1838, descr.=Cordia Linn.

elliptica Raf. l.c., descr. (Cordia elliptica Sw.). West Indies.

ANISANTHERA Raf. Fl. Tellur. 3:80. 1836 [1837], descr.

(non Anisanthera Raf. op. cit. 2:60. 1836 [1837]) = Caccinia Savi (1832).

ciliata Raf. 1.c., descr. (Borrago macranthera Soland. ex Russell, Nat. Hist. Aleppo, ed. 2, 2:246. 1794). Syria=Caccinia macranthera (Soland.) Brand (C. russellii Boiss.).

ARG ZIA [Amm.] Steud. Nomencl. 68. 1821, nom.; Raf. Sylva Tellur. 167. 1838, descr. = Messerschmidia Linn.; see Johnst. Jour. Arnold Arb. 16:161. 1935.

repens Raf. 1.c., nom. (Messersmidia arguzia Linn.). Siberia= Messerschmidia sibirica Linn. (Tournefortia sibirica Linn.).

ARGYREXIAS Raf. Fl. Tellur. 4:86. 1836 [1838], descr.= Echium Linn.

candicans Raf. 1.c., descr. (Echium candicans Linn.; Ker-Gawl. Bot. Reg. 1: t. 44. 1815). Madeira.

BATSCHIA J. F. Gmelin=Lithospermum Linn.

albiflora Raf. New Fl. N. Am. 4:19. 1836 [1838], descr. Arkansas River=Euploca albiflora (Raf.) Johnst. (Heliotropium convolvulaceum (Nutt.) Gray).

BORELLIA Neck.=Cordia Linn.

aspera Raf. Raf. Sylva Tellur. 41. 1838, descr. (Cordia tetrandra Aubl.). Guiana.

BOURRERIA P. Browne.

baccata Raf. Sylva Tellur. 42. 1838, nom. (Ehretia bourreria

Linn.). West Indies=Bourreria succulenta Jacq.

CARPIPHEA Raf. Sylva Tellur. 39. 1838, descr.=Cordia Linn.
dentata Raf. 1.c., nom. India (Cordia monoica Roxb.).

CATONIA Raf. Fl. Tellur. 2:36. 1836 [1837], descr., non P.
Browne (1756), nec Moench. (1794)=Cordia Linn.

lantanoides Raf. 1.c., descr. (Varronia monosperma Jacq.).

Venezuela = Cordia polycephala (Lam.) Johnst.

CHILOCHIUM Raf. Anal. Nat. Tabl. Univ. 186. 1815, nom. nov. Echiochilon Desf.; Ann. Gén. Sci. Phys. 8:269. 1821, nom. (Echiochilon Desf.) = Echiochilon Desv. (1800).

COILANTHERA Raf. Sylva Tellur. 38. 1838, descr. = Cordia Linn

rotundifolia Raf. 1.c., descr. (Cordia rotundifolia Ruiz & Pavon, Fl. Peruv. 2:24. t. 148. 1799) Peru=Cordia lutea

COLOCOCCA Raf. Sylva Tellur. 40. 1838, descr.=Cordia Linn. macrophyla Raf. 1.c., descr. (Colococcus platyphyllos [major]

P. Br.; Cordia macrophylla Linn.) Jamaica. \*platyphylos Raf. 1.c., nom. in syn. [Colococcus platyphyllos major P. Br.). Jamaica = Cordia macrophylla Linn.

CORDIA Linn.

egyptiaca Raf. Sylva Tellur. 37. 1838, descr. Egypt=Cordia

myxa Linn.

\*officinalis Raf. op. cit. 38, descr. (Cordia myxa Linn. var. officinalis Lam. [C. officinalis Lam.]). Arabia, East Indies= C. myxa Linn.

\*toquera Raf. Sylva Tellur. 40. 1838, nom. sub Toquera Raf.= Cordia toqueve Aubl. Guiana.

CYNOGLOSSUM Linn.

\*sericeum Raf. Herb. Raf. 60. 1833, nom. Kentucky or Illi-

CYPHORIMA Raf. Am. Monthly Mag. Crit. Rev. 4:191, nom., nota, 207, nom., 357, descr. 1819 (Lithospermum latifolium Michx.); Jour. Phys. Chim. Hist. Nat. 89:98. 1819, descr. (Lithospermum latifolium Michx.); Isis von Oken 1820, 1: Lit. Anz. 238. 1820, descr.; New Fl. N. Am. 4:19. 1836 [1838], nom., nota=Lithospermum Linn. decumbens Raf. ex Jacks\*. Ind. Kew. 1:701. 1893 (Batschia

decumbens Nutt.). Eastern North America=Lithospermum

incisum Lehm.

latifolia Raf. ex Jacks\*. 1.c. (Lithospermum latifolium Michx.). Eastern North America.

longiflora Raf. ex Jacks\*. 1.c. (Batschia longiflora Pursh).

Eastern North America = Lithospermum incisum Lehm. lutea Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom. (Lithospermum latifolium auctt.). Kentucky=Lithospermum latifolium Michx.; see Fernald, Rhodora 46:496.

\*DASICEPHALA Raf. Sylva Tellur. 43. 1838, nom. sub Piloisia Raf. = Dasycephala H.B.K. (1818), ut sect. Cordia Linn. =

Cordia Linn.

DESMOPHYLA Raf. Sylva Tellur. 43. 1838, descr. = Ehretia Linn.

aliena Raf. 1.c., descr. (Ehretia fasciculata H.B.K.), Venezuela.

DIALION Raf. Sylva Tellur. 89. 1838, descr.=Heliotropium Linn.

undulatum Raf. 1.c., nom. (Heliotropium undulatum Vahl, Lithospermum hispidum Forsk.). Egypt=Heliotropium undulatum Vahl.

ECHIUM Linn.

\*ferox Raf. Fl. Tellur. 4:86. 1836 [1838], nom. sub. Oplexion ferox Raf.=Echium ferocissimum Andr.=Lobostemon argenteus (Berg.) Buek. South Africa.

\*glaucum Raf. I.c., nom.=E. glaucophyllum Jacq.=Lobostemon glaucophyllus (Jacq.) Buek. South Africa.

ECTEMIS Raf. Sylva Tellur. 39. 1838, descr.=Cordia Linn. lutea Raf. l.c., descr. (Cordia lutea Lam.). Peru.

ELIOPIA Raf. Sylva Tellur. 90. 1838, descr.=Heliotropium Linn.

riparia Raf. 1.c., descr. (Heliotropium indicum auct. Am.). Eastern North America=Heliotropium indicum Linn.

serrata Raf. l.c., descr. (Heliotropium indicum sensu Sw.).
West Indies, Tropical America=Heliotropium indicum Linn.

FIRENSIA Scop.; Raf. Sylva Tellur. 39. 1838, descr.=Cordia

fusca Raf. op. cit. 40, descr. (Cordia collococca Linn.). West

hirsuta Raf. 1.c., descr. (Cordia hirsuta Willd.). Guiana= Cordia nodosa Lam.

lutea Raf. l.c., descr. (Cordia tetraphylla Aubl.). Guiana; see Johnst. Jour. Arnold Arb. 16:44. 1935.

GERASCANTHUS P. Browne; Raf. Sylva Tellur. 40. 1838, descr.=Cordia Linn.

scabra Raf. 1.c., descr. (Cordia gerascanthus Linn.). Jamaica = Cordia gerascanthus Linn. (P. Browne, Hist. Jamaic. 170. t. 19. f. 3. 1756).

**HELIOTROPIUM** Linn.

\*angustifolium Raf. Herb. Raf. 79. 1833, nom. nov. H. curas-

savicum Linn. Florida or Alabama. \*baccatum Raf. Sylva Tellur. 89. 1838, nom. sub Peristima bicolor Raf., sphalm.=H. bacciferum Forsk. Arabia. europeum Linn, var. odoratum Raf. Chloris Aetn. 5. 1815,

nom. Sicily.

**ISOPLESION** Raf. Fl. Tellur. 4:86. 1836 [1838], descr.= Echium Linn.

giganteum Raf. 1.c., nom. (Echium giganteum Linn. f.). Teneriffe.

italicum Raf. 1.c., nom. (Echium italicum Linn.). Mediterranean region.

pyrenaicum Raf. I.c., nom. (Echium pyrenaicum Linn.). Southern Europe.

rubrum Raf. 1.c., nom. (Echium rubrum Jacq.). Southern

Europe.

**ISORIUM** Raf. Fl. Tellur. 2:61. 1836 [1837], descr.; op. cit. 4:85. 1836 [1838], nom., nota=Lobostemon Lehm. (1830). formosum Raf. l.c., descr. (Echium formosum Pers.; E. grandiflorum Andr. Bot. Rep. 1: t. 20. 1798). South Africa=Lobostemon grandiflorus (Andr.) Levyns.

**LAREPHES** Raf. Fl. Tellur. 4:86. 1836 [1838], descr. = Echium Linn.

parviflorum Raf. 1.c., descr. (Echium parviflorum Moench). North Africa=Echium calycinum Viv.

LITHOSPERMUM Linn.

ciliatum Raf. New Fl. N. Am. 4:18. 1836 [1838], descr., non Forsk. (1775). Arkansas (Red River) and Texas. cuspidatum Raf. 1.c., descr. Alabama, Georgia=? Onosmodium virginianum (Linn.) A. DC.

floridanum Raf. l.c., descr. Florida=Heliotropium polyphyl-

lum Lehm.

gracile Raf. op. cit. 17, descr. Alabama, Arkansas, Texas= Heliotropium tenellum Nutt.

strigosum Raf. op. cit. 18, descr., non Bieb. (1808). Florida = Lithospermum carolinense (Walt.) MacMill.

tenellum Raf. <sup>31</sup> Am. Monthly Mag. Crit. Rev. 1:359. 1817, nom.; Am. Jour. Sci. 1:82. 1818, nom.; Am. Monthly Mag. Crit. Rev. 4:195. 1819, nom. (Myosotis scabra Nutt.). New Jersey=Myosotis verna Nutt.

\*trinervum Raf. Am. Jour. Sci. 1:82. 1818, nom. New Jersey.

LYCOPSIS Linn.

axillaris Raf. New Fl. N. Am. 4:19. 1836 [1838], descr. Florida.

\*MESSERMIDIA Raf. Sylva Tellur. 167. 1838, nom., nota= Messerschmidia Linn. (1763).

\*fruticosa Raf. 1.c., nom., nota [Messersmidia fruticosa Linn. f.] = Heliotropium messerschmidtioides O. Kuntze.

var. angustifolia Raf. l.c., nom. Canary Islands. latifolia Raf. 1.c., nom. Canary Islands.

MONOMESIA Raf. Fl. Tellur. 4:87. 1836 [1838], nom. (Coldenia sp. nov. Juss. Gen. 130. 1789; Coldenia dichotoma Lehm. e Peru) = Coldenia Linn.

MYOSOTIS Linn.

\*scabra Nutt. ex Raf. Am. Monthly Mag. Crit. Rev. 4:195. 1819, nom. sub Lithospermum tenellum Raf. North America. #MYXOS Raf. Sylva Tellur. 37. 1838, nom., subgen. Cordia

Linn. (Type Cordia myxa Linn.).

NOVELLA Raf. Sylva Tellur. 39. 1838, descr. (Novella Rumph.)=Cordia Linn.

81 In the Amos Eaton herbarium at Yale University is a specimen of this with Rafinesque's original diagnosis. Here it is evident that Rafinesque, whose specimen is labelled Fishkill, sent certain specimens and descriptions to Eaton, the latter apparently for publication; but Eaton did not accept Rafinesque's offerings. There is one other case of a new Stellaria, also from Fishkill, where the Rafinesque specimen and description is in the Eaton herbarium; but Rafinesque never published this elsewhere.

nigra Raf. 1.c., descr. (Novella nigra Rumph. Herb. Amb. 2:226. t. 75. 1741; Cordia subcordata Lam.). Moluccas=Cordia subcordata Lam.; see Merrill, Interpret. Rumph. Herb. Amb. 447. 1917. OMPHALODES Moench.

\*ovatifolia Raf. Herb. Raf. 51. 1833, nom. Rocky Mountains

or Oregon.

#ONOKILES Raf. New Fl. N. Am. 4:19. 1836 [1838], nom. nov. provis., subgen. Batschia J. F. Gmel. (Type Batschia albiflora Raf.). = Heliotropium Linn.

OPLEXION Raf. Fl. Tellur. 4:86. 1836 [1838], descr. = Loboste-

mon Lehm. (1830).

ferox Raf. I.c., descr. (Echium ferocissimum Andr. Bot. Repos. 1: t. 39. 1798). South Africa=Lobostemon argenteus (Berg.) Buek.

OSKAMPIA Raf. Sylva Tellur. 123. 1838, descr., non Moench
(1794) = Tournefortia Linn.

hirsuta Raf. l.c., nom. (Tournefortia hirsutissima Linn.) Tropi-

cal America. scandens Raf. l.c., nom. (Tournefortia scandens Mill.). Ja-

OSMODIUM Raf. Med. Repos. II. 5:353. 1808, nom. nov. Onosmodium Michx.; Jour. Bot. (Paris) 2:172. 1809, nom.

Onosmodium Michx.; Jour. Bot. (Paris) 2:172. 1809, nom. (Onosmodium Michx.); Am. Monthly Mag. Crit. Rev. 2:176. 1818, nom., nota; op. cit. 3:100. 1818, nom., nota; op. cit. 4:191. 1819, nom. (Onosmodium Michx.; Purshia Spreng.); Jour. Phys. Chim. Hist. Nat. 89:257. 1819, nom.=Onosmodium Michx. (1803) (Purshia Spreng. 1817). \*flexuosum Raf. Herb. Raf. 62. 1833, nom. Kentucky or Ulipais.

Illinois.

\*lasianthes Raf. op. cit. 67, nom. Cumberland Mountains. nigrum Raf. Atl. Jour. 1:148. 1832, descr. Florida =? Onosmodium virginianum (Linn.) A. DC. \*PACURINA Raf. Fl. Tellur. 1:85. 1836 [1837], nom.

Messerschmidia Linn. (1763) (Messersmidia Linn. 1767); see Johnst. Jour. Arnold Arb. 16:161. 1935.
PENTHYSA Raf. Fl. Tellur. 4:86. 1836 [1838], descr.=Loboste-

mon Lehm. (1830).

glauca Raf. l.c., descr. (Echium glaucophyllum Jacq.; Andr. Bot. Repos. 5: t. 325, 1803. South Africa=Lobostemon glaucophyllus (Jacq.) Buek.

levigata Raf. 1.c., descr. (Echium laevigatum Linn.). South Africa=Lobostemon laevigatus (Linn.) Buek.

strigosa Raf. l.c. descr. (Echium fruticosum Linn.; Ker-Gawl. Bot. Reg. 1: t. 36. 1815). South Africa=Lobostemon fruticosus (Linn.) Buek.

PERISTIMA Raf. Sylva Tellur. 89. 1838, descr. = Heliotropium Linn.

bicolor Raf. l.c., descr. (Heliotropium "baccatum," sphalm.= H. bacciferum Forsk.). Arabia.

PILOISA Raf. ex Jacks\*. Ind. Kew. 2:525. 1894=seq. curassavica Raf. ex Jacks\*. l.c. (*Piloisia curassavica* Raf.).

South America=Cordia curassavica (Jacq.) Roem. & Schult.

globosa Raf. ex Jacks\*. 1.c. (Piloisia globosa Raf.). West

Indies=Cordia globosa (Jacq.) H.B.K.
\*PILOISIA Raf. Sylva Tellur. 43. 1838, descr.=Cordia Linn.
\*curassavica Raf. l.c., nom. (Varronia curassavica Jacq.). South America = Cordia curassavica (Jacq.) Roem. & Schult. \*globosa Raf. I.c., nom. (Varronia globosa Jacq.). West Indies = Cordia globosa (Jacq.) H.B.K.

PIOCTONON Raf. Sylva Tellur. 88. 1838, descr.=Heliotropium

Linn.

antillanum Raf. 1.c., descr. (Heliotropium fruticosum Linn.; Tournefortia humilis Linn.). West Indies=Heliotropium fruticosum Linn.

persicum Raf. l.c., descr. (Heliotropium persicum Burm. f. Fl. Ind. 41. t. 19. f. 1. 1768; "H. frutic[osum] var. Pers.").

ternatum Raf. 1.c., descr. (Heliotropium ternatum Vahl). West Indies.

PULMONARIA Linn.

elliptica Raf. Herb. Raf. 66. 1833, nom.; New Fl. N. Am. 4:17. 1836 [1838], descr. Appalachian Mountains of Virginia=Hackelia virginiana (Linn.) Johnst.

QUARENA Raf. Sylva Tellur. 39. 1838, descr.=Cordia Lina.

indica Raf. l.c., nom. (Cordia indica Lam.). India = Cordia

dichotoma Forst. f. sinensis Raf. l.c., nom. (Cordia †sinensis Lam. Tabl. Encycl. 1:423. 1791; Poir. in Lam. Encycl. 7:49. 1806). China=

Cordia dichotoma Forst. f. spinescens Raf. 1.c., nom. (Cordia spinescens Linn.). India. RACLATHRIS Raf. Sylva Tellur. 167. 1838, descr.=Rochelia Reichb. (1824), non Roem. & Schult. (1819).

cerinthoides Raf. 1.c., nom. (Messersmidia cancellata Asso). Spain=Rochelia disperma (Linn.) Wettst. (R. stellulata Reichb.).

ROCHELIA Roem. & Schult. (1819) = Echinospermum Sw. (1818)

\*remotiflora Raf. Herb. Raf. 60. 1833, nom. Kentucky or Illinois.

SCHOBERA Scop. = Heliotropium Linn.

hirsuta Raf. Sylva Tellur. 158. 1838, descr. (Heliotropium angiospermum Murr.). Tropical America.

SCORPIANTHES Raf. Sylva Tellur. 89. 1838, descr.=Heliotropium Linn.

lineata Raf. 1.c., nom. (Heliotropium lineatum Vahl; Lithospermum heliotropoides Forsk.). Arabia. SEBESTENA Gaertn.; Raf. Sylva Tellur. 38. 1838, descr.=

Cordia Linn.

indica Raf. 1.c., descr. [Cordia sebestina Linn.]. "India" [West Indies].

repanda Raf. 1.c., descr. (Cordia [sebestina Linn.]). South America.

scabra Raf. 1.c., descr. (Caryophyllus spurius inodorus Sloane; Catesby, Nat. Hist. Carol. 2:91. t. 91. 1733). West Indies, Bahamas = Cordia sebestina Linn.

senegalensis Raf. op. cit. 39, descr. (Cordia senegalensis Poir.).

Comm.; Raf. Sylva Tellur. 43. 1838, descr.= SUBRISIA Ehretia Linn.

petiolaris Raf. l.c., descr. (Ehretia petiolaris Lam.; E. internodis L'Hérit.). Mauritius=Ehretia petiolaris Lam.

SYMPHYTUM Linn. hirsutum Raf. Med. Fl. 2:95. 1830, descr.; Casket 1832: 185. 1832, descr.; Sat. Eve. Post 11(560):[4]. 1832, descr. North America = Symphytum officinale Linn.

officinale Linn.; Raf. 1.c., descr.; Casket 1832:185. 1832, nom.; Sat. Eve. Post 11(560):[4]. 1832, descr. Europe, introduced in North America

var. albiflorum Raf. Il.cc., nom. elatior Raf. Il.cc., nom. nigrum Raf. 11.cc., nom. pumilum Raf. 11.cc., nom.

purpureum Raf. Il.cc., descr.

SYNZISTACHIUM Raf. Sylva Tellur. 89. 1838, descr.=Heliotropium Linn.

peruvianum Raf. 1.c., nom., nota (Heliotropium synzystachyum Ruiz & Pavon.). Peru=Heliotropium angiospermum Murr.

TIARIDIUM Lehm. \*riparium Raf. Herb. Raf. 60. 1833, nom., nota (Heliotropium indicum auct. Am.). Kentucky or Illinois=Heliotropium indicum Linn.

TOPIARIS Raf. Sylva Tellur. 43. 1838, descr. = Cordia Linn. geniculata Raf. I.c., descr. (Varronia geniculata Pers.; V. mirabiloides Jacq.; Tournefortia serrata Linn.). Haiti = Cordia mirabiloides Jacq. (C. serrata Gürke, non Juss., nec Roxb.).

TOQUERA Raf. Sylva Tellur. 40. 1838, descr.=Cordia Linn. tomentosa Raf. I.c., descr. (Cordia toqueve Aubl.). Guiana. TRAXARA Raf. Fl. Tellur. 4:85. 1836 [1838], descr.=Lobos-

temon Lehm. (1830).

capitata Raf. op. cit. 86, descr. (Echium capitatum Linn.).
South Africa=Lobostemon capitatus (Linn.) Buek.

TRAXILUM Raf. Sylva Tellur. 42. 1838, descr.=Ehretia Linn.
asperatum Raf. ex Jacks\*. Ind. Kew. 2:1099. 1895=seq.
\*asperum Raf. Sylva Tellur. 1.c., descr. (Ehretia aspera
Willd.; Roxb. Pl. Coromand. 1:42. t. 55. 1795). India.

# VERBENACEAE

AMICTONIS Raf. Sylva Tellur. 161. 1838, descr. = Callicarpa

japonica Raf. 1.c., nom. (Callicarpa japonica Thunb.). Japan. AVICENNIA Linn.

floridana Raf. Atl. Jour. 1:148. 1832, descr. Florida, Louisiana, Jamaica=A. tomentosa Sw.

†BERTOLONIA Raf. Précis Découv. Somiol. 1814 (p. 3 of cover), nom. (Verbena nodiflora Linn.); iter. Desv. Jour. Bot. 4:277. 1814, nom.; Chloris Aetn. 5. 1815, nom. (Verbena repens Bertol.; Verbena nodiflora "europea" Linn.); Am. Monthly Mag. Crit. Rev. 2:267. 1818, nom. (Zapania nodiflora sensu Pursh); op. cit. 4:194. 1819, nom. (Zapania

nodiflora auct. Europ.); Jour. Phys. Chim. Hist. Nat. 89: 259. 1819, nom. (Verbena nodiflora Linn.; Zapania nodiflora Lam.); Fl. Tellur. 2:102. 1836 [1837], nom. sub Pilopus Raf., non Bertolonia Spinola (1809), nec DC. (1812), nec aliorum=Phyla Lour. (1790)=Lippia Linn.

\*crassifolia Raf. Chloris Aetn. 5. 1815, nom. (Verbena nodi-flora "europea" Linn.; Verbena repens Bertol.). Sicily. \*scabra Raf. ex M'Murtrie, Sketch. Louisv. 214. 1819, nom.

Kentucky. EGENA Raf. Fl. Tellur. 2:85. 1836 [1837], descr.=Clerodendron Linn.

erminensis Raf. 1.c., descr. (Clerodendron ermirense Bojer

ex Hock. Bot. Mag. 56: t. 2925. 1829). Madagascar. #ERPILA Raf. Sylva Tellur. 81. 1838, descr. subgen. Lantana Linn. (Type Lantana annua Linn.).

LANTANA Linn.

antillana Raf. Sylva Tellur. 82. 1838, descr. (Lantana camara

Linn.). West Indies.
floridana Raf. Atl. Jour. 1:148. 1832, descr. (Lantana camara sensu Barton, Elliott); Herb. Raf. 58. 1833, nom.; Sylva Tellur. 82. 1838, descr. Florida=Lantana camara Linn.

incarnata Raf. Sylva Tellur. 83. 1838, descr. West Indies= Lantana camara Linn.

\*ochreata Raf. op. cit. 81, nom. sub Lantana Linn. Subg. Periana Raf.

parvifolia Raf. Atl. Jour. 1:176. 1833, descr.; Herb. Raf. 21. 1833, descr., non Salisb. 1796. Texas. reticulata Raf. Sylva Tellur. 82. 1838, descr., non Pers. 1807.

Florida.

trosea Raf. Herb. Raf. 58. 1833, nom.; Sylva Tellur. 83. 1838, descr. West Indies. undulata Raf. Sylva Tellur. 82. 1838, descr., non Schrank

1822 (Lantana annua sensu Raf. Fl. Ludovic. 39. 1817,

non Linn.). Louisiana = Lantana camara Linn.

LOMAKE Raf. Aut. Bot. 73. 1840, descr.; Pennell, Bull. Torr.

Bot. Club 48:93. 1921, nom. Ex descr. = Stachytarpheta
Vahl (1805), nom. conserv. (Sherardia Adans., 1763; Valerianoides Medic., 1789; Vermicularia Moench, 1802).
brachiata Raf. l.c., descr.; Pennell, l.c., nom. Cuba.
PANOPE Raf. Fl. Tellur. 2:103. 1836 [1837], descr.=Lippia Linn. (Phyla Lour., 1790).

stechadifolia Raf. 1.c., descr. (Verbena stoechadifolia Linn.; Zapania stoechadifolia Juss.). Florida, Jamaica—Lippia stoechadifolia (Linn.) H.B.K. (Phyla stoechadifolia Greene).

\*PATULIX Raf. Good Book 61. 1840, nom. nov. Torreya Spreng., (1821), non Raf. (1818, 1819) = Clerodendron Linn.

#PERIANA Raf. Sylva Tellur. 81. 1838, descr. subgen. Lantana Linn. (Types Lantana ochreata Raf.; L. involucrata Linn.; L. aculeata Linn.).

PIARIMULA Raf. Fl. Tellur. 2:102. 1836 [1837], descr., nom.

nov. Phyla Lour. (1790) = Lippia Linn.
chinensis Raf. l.c., descr. (Phyla chinensis Lour.). Southeastern China=Lippia nodiflora (Linn.) L. C. Rich.; see Merrill, Trans. Am. Philos. Soc. II. 24(2):331. 1935.

PILOPUS Raf. Fl. Tellur. 2:102. 1836 [1837], nom. nov. Bertolonia Raf. (1818), non Spinola (1809) = Phyla Lour. (1790) =Lippia Linn.

nodiflora Raf. ex Jacks\*. Ind. Kew. 2:525. 1894 (Verbena nodiflora Linn.) = Lippia nodiflora (Linn.) L. C. Rich.

PLATONIA Raf. Med. Repos. II. 5:352. 1808, nom.; Jour. Bot. (Paris) 2:170. 1809, nom.; Car. Nuov. Gen. Sp. Sicil. 73. 1910, nom., nota; Fl. Tellur. 1:16. 1836 [1837], nom. = Phyla Lour. (1790) = Lippia Linn. nudiflora Raf. Med. Repos. et Jour. Bot. Il.cc., nom. (Verbena Linguista Linguista Linguista Raf. Med. Repos. et Jour. Bot. Il.cc., nom. (Verbena Linguista Raf. Med. Repos. et Jour. Bot. Il.cc., nom. (Verbena Linguista Raf. Med. Repos. et Jour. Bot. Il.cc., nom. (Verbena Linguista Raf. Med. Repos. et Jour. Bot. Il.cc., nom. (Verbena Linguista Raf. Med. Repos. et Jour. Bot. Il.cc., nom. (Verbena Linguista Raf. Med. Repos. et Jour. Bot. Il.cc., nom. (Verbena Linguista Raf. Med. Repos. et Jour. Bot. Il.cc., nom. (Verbena Linguista Raf. Med. Repos. et Jour. Bot. Il.cc., nom. (Verbena Linguista Raf. Med. Repos. et Jour. Bot. Il.cc., nom. (Verbena Linguista Raf. Med. Repos. et Jour. Bot. Il.cc., nom. (Verbena Linguista Raf. Med. Repos. et Jour. Bot. Il.cc., nom. (Verbena Linguista Raf. Med. Repos. et Jour. Bot. Il.cc., nom. (Verbena Linguista Raf. Med. Repos. et Jour. Bot. Il.cc., nom. (Verbena Linguista Raf. Med. Repos. et Jour. Bot. Il.cc., nom. (Verbena Linguista Raf. Med. Repos. et Jour. Bot. Il.cc., nom. (Verbena Linguista Raf. Med. Repos. et Jour. Bot. Il.cc., nom. (Verbena Linguista Raf. Med. Repos. et Jour. Bot. Il.cc.)

nodiflora Linn., sphalm. Raf. nudiflora); A. Gray, Am. Jour. Sci. 40:288. 1841, nom. Pantropic=Lippia nodiflora (Linn.) L. C. Rich.

PLEXIPUS Raf. F1. Tellur. 2:104. 1836 [1837], descr.= Bouchea Cham. (1832).

cuneifolius Raf. 1.c., descr. (Buchnera cuneifolia Thunb.;

Phryma dehiscens Linn. f.). South Africa=Bouchea dehiscens (Linn. f.) Druce (B. cuneifolia Schauer).

ROTHECA Raf. Fl. Tellur. 4:69. 1836 [1838], descr.=Clerodendron Linn.

bicolor Raf. 1.c., descr. (Clerodendron macrophyllum Sims, Bot. Mag. 52: t. 2536. 1825). Mauritius=Clerodendron serratum (Linn.) Spreng.

ternifolia Raf. l.c., descr. (Volkameria serrata Linn.; Tsjerou-Theka Rheede, Hort. Malabar. 4:61. t. 29. 1683). India = Clerodendron serratum (Linn.) Spreng.

**STYLEURODON** Raf. Fl. Tellur. 2:104. 1836 [1837], descr.= Stylodon Raf. (1825)=Verbena Linn.

carolinianum Raf. l.c., descr. (Verbena caroliniana Willd.;
Phryma carolinensis Walt.). Carolina, Alabama, Florida=
Verbena carnea Medic. (1784) (Stylodon carolinensis (Walt.) Small).

STYLODON Raf. Neogen. 2. 1825, descr. = Styleurodon Raf. (1837) = Verbena Linn.

scabrum Raf. 1.c., nom. (Verbena caroliniana Willd.; Phryma carolinensis Walt.). Southeastern United States=Verbena carnea Medic. (1784) (Verbena \*carolinensis Small, Fl. Southeast. U. S. 1009. 1903; Stylodon carolinensis (Walt.) Small).

TARPHETA Raf. Fl. Tellur. 2:103. 1836 [1837], descr., nom. nov. Stachytarpheta Vahl (1805), nom conserv. (Sherardia Adans., 1763; Valerianoides Medic., 1789; Vermicularia Moench, 1802).

#TRILEPTA Raf. Sylva Tellur. 81. 1838, descr., subgen. Lantana Linn. (Type Lantana trifolia Linn.)=Lantana Linn.

VERBENA Linn.

\*coccinea Raf. Herb. Raf. 50. 1833, nom. Oregon or the Rocky Mountains.

cuneifolia Raf. Med. Repos. II. 5:360. 1808, descr.; Jour. Bot. (Paris) 1:228. 1809, descr. Pennsylvania, Maryland, Virginia=V. stricta Vent.

incarnata Raf. Atl. Jour. 1:154. 1832, descr.; Herb. Raf. 69.

1833, nom. Pennsylvania (Juniata River). \*laciniata Raf. Herb. Raf. 61. 1833, nom. Kentucky or Illi-

mollis Raf. Atl. Jour. 1:146. 1832, nom. (Verbena stricta Vent. var. mollis Torr. Ann. Lyc. Nat. Hist. N. Y. 2:234. 1827). Arkansas River?=V. stricta Vent. \*multicaulis Raf. Herb. Raf. 65. 1833, nom. Appalachian

\*nudiflora Raf. Med. Repos. II. 5:352. 1808, nom.: Jour. Bot. (Paris) 2:170. 1808, nom., sphalm.=Verbena nodiflora Linn. =Lippia nodiflora (Linn.) L. C. Rich. Pantropic.

\*ringens Raf. First Cat. Bot. Gard. Transylv. Univ. 16. 1824, nom.; Herb. Raf. 61. 1833, nom., ut videtur sphalm.=Verbens.

bena rigens Michx. Kentucky.

\*riparia Raf. Herb. Raf. 69. 1833, nom.; Small & Heller Mem. Torr. Bot. Club 3(1):12. 1892, descr. Long Island, New Jersey, Chesapeake Bay. (V. urticifolia Linn. var. riparia (Raf.) Britton.)

ZAPANIA Lam.=Lippia Linn. crassifolia Raf. Herb. Raf. 66. 1833, nom. Appalachian

Mountains.

### LABIATAE

**AITOPSIS** Raf. Fl. Tellur. 3:91. 1836 [1837], descr.=Salvia

foliosa Raf. 1.c., descr. (Salvia foliosa Benth. Bot. Reg. 17: t. 1429. 1831). Mexico.

ANEMITIS Raf. Fl. Tellur. 3:87. 1836 [1837], descr.= Phlomis Linn.

AMARACUS Hill.

Linn.

\*sipleus Raf. Fl. Tellur. 3:86. 1836 [1837], nom. [Origanum sipyleum Linn.] = A. sipyleus (Linn.) Briq. in Engl. & Prantl, Nat. Pflanzenfam. 4(3A):304. 1896. Asia Minor.

AMETHYSTEA Linn.

\*paniculata Raf. Herb. Raf. 50. 1833, nom. Rocky Mountains or Oregon.

rigida Raf. 1.c., nom. (Phlomis herba-venti Linn.). Mediterranean region.

ATIRBESIA Raf. Aut. Bot. 117. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:94. 1921, nom. = Marrubium Linn.
\*bracteata Raf. op. cit. 118, nom. (Marrubium peregrinum

Linn.). Europe.

BELOAKON Raf. Fl. Tellur. 3:87. 1836 [1837], descr.= Phlomis Linn.

luteum Raf. l.c., descr. (Phlomis herba-venti sensu Soland. ex Russell, Nat. Hist. Aleppo ed. 2, 2:269. t. 16. 1794). Syria=Phlomis russeliana Lagasca.

tomentosum Raf. 1.c., descr. (Phlomis lunarifolia Sibth. & Sm. [var. russeliana Sims]; Bot. Mag. 52: t. 2542. 1825; P. russeliana Lagasca). Syria = Phlomis russeliana Lagasca.

BELOPIS Raf. Fl. Tellur. 3:90. 1836 [1837], descr. = Salvia

levigata Raf. op. cit. 91, descr. (Salvia laevigata H.B.K. Nov. Gen. Sp. Pl. 2: t. 147. 1817; S. involucrata Cav. Ic. 2: 114. t. 105. 1793; Hook. Bot. Mag. 55: t. 2872. 1823; Lindl. Bot. Reg. 14: t. 1205. 1829). Mexico=Salvia involucrata Cav.

BELTOKON Raf. Fl. Tellur. 3:86. 1836 [1837], descr.=Origanum Linn.

tourneforti Raf. 1.c., nom. (Origanum tournefortii Ait.). Greece.

BERINGERIA Neck.=Ballota Linn.
\*dictamnoides Raf. Aut. Bot. 118. 1840, descr. (Marrubium pseudo-dictamnus Linn.). Crete=Ballota pseudo-dictamnus (Linn.) Benth.

\*plicata Raf. 1.c., descr. (Marrubium plicatum Forsk.; M. undulatum Sieber). Egypt, Asia Minor=Marrubium alysson Linn.

BLANDINA Raf. Fl. Tellur. 3:88. 1836 [1837], descr.=Leucas R. Br. (1810).

biflora Raf. 1.c., nom. (Phlomis biflora Vahl.; Leucas biflora R. Br.). India.

chinensis Raf. 1.c., nom. (Phlomis chinensis Retz.; Leucas

chinensis R. Br.). India, ? China. BLEPHILIA Raf. Am. Monthly Mag. Crit. Rev. 4:190, 1819,

nom., nota (Monarda ciliata Linn.); op. cit. 207, nom.; Jour. Phys. Chim. Hist. Nat. 89:98. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 238. 1820, descr.; Med. Fl. 2:37. 1830, descr. (ut subgen. Monarda Linn.); New Fl. N. Am. 4:94. 1836 [1838], nom.

becki Raf. Atl. Jour. 1:146. 1832, nom. (Monarda ciliata sensu Torr. Ann. Lyceum Nat. Hist. N. Y. 2:288. 1827). Mis-

souri River=Blephilia ciliata (Linn.) Benth.

brevifolia Raf. New Fl. N. Am. 4:96. 1836 [1838], nom. sub Blephilia lanceolata Raf. (Monarda ciliata Linn.). North America = Blephilia ciliata (Linn.) Benth.

brevipes Raf. 1.c., descr. Alabama=B. ciliata (Linn.) Benth. †ciliata (Linn.) Benth. Lab. Gen. Sp. 319. 1832-33 (Monarda

ciliata Linn.). Eastern North America.

†heterophyla Raf. Herb. Raf. 66. 1833, nom.; New Fl. N. Am. 4:96. 1836 [1838], nom. sub B. lanceolata Raf. (Monarda ciliata Linn.). Appalachian Mountains=Blephilia ciliata (Linn.) Benth.

\*incarnata Raf. First Cat. Bot. Gard. Transylv. Univ. 13.

1824, nom. Kentucky.

lanceolata Raf. New Fl. N. Am. 4:96. 1836 [1838], descr. Kentucky, Indiana, Illinois = B. hirsuta (Pursh) Benth.

repetoides Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom.; Herb. Raf. 60. 1833, nom.; New Fl. N. Am. 4: 96. 1836 [1838], nom. sub B. lanceolata Raf. Kentucky= B. hirsuta (Pursh) Benth. ex spec. in herb. N. Y. Bot. Gard.

†pratensis Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1834, nom.; New Fl. N. Am. l.c., nom. sub B. lanceolata Raf. (Monarda ciliata Linn.). Kentucky=Blephilia ciliata (Linn.) Benth.

BLEPHILOMA Raf. Fl. Tellur. 3:87, nom., 95, descr., 1836 [1837] = Phlomis Linn.

amplifolia Raf. 1.c. 85, descr.; Aut. Bot. 118. 1840, nom. Arkansas, Texas.

BLEPHIXETA Raf. nom. provis. subgen. Pycnanthes Raf. New Fl. N. Am. 4:96. 1836 [1838] (Type, Pycnanthes ciliata Raf.)=? Pycnanthemum Michx. (1803), nom. conserv. (Furera Adans., 1763; Koellia Moench, 1794). #BRACHYSTEMON Raf. New Fl. N. Am. 4:95. 1836 [1838],

nom., subgen. Pycnanthes Raf., sub P. saxatilis Raf. = seq. BRACHYSTEMUM Michx. = Pycnanthemum Michx. (1803),

nom. conserv. (Furera Adans., 1763; Koellia Moench, 1794). \*canescens Raf. ex M'Murtrie, Sketch. Louisv. 214. 1819, nom. Kentucky.

BRUNELLA Linn.=Prunella Linn.
\*brevispica Raf. Herb. Raf. 61. 1833, nom. Kentucky or Illinois Prob.=Prunella vulgaris Linn.

\*cinerea Raf. New Fl. N. Am. 2:30. 1836 [1837], descr. Kentucky, Alabama, Florida=Prunella vulgaris Linn. var. hispida Benth.

\*cordata Raf. op. cit. 31, descr. Alleghany Mountains=Prunella vulgaris Linn.

\*heterophyla Raf. Herb. Raf. 68. 1833, nom.; New Fl. N. Am. 2:31. 1836 [1837], descr. Alleghany Mountains=Prunella vulgaris Linn.

BRUNELLA (continued).

\*hirsuta Raf. Herb. Raf. 61. 1833, nom.; New Fl. op. cit. 30, descr. Illinois, Missouri=Prunella vulgaris Linn. var. lanceolata (Barton) Fernald.
\*microphyla Raf. l.c., nom., op. cit. 29, descr. (microphylla).
Alleghany and Kiskanom Mountains=? Prunella vulgaris

Linn.

\*montana Raf. 1.c., nom. Alleghany Mountains. Prob.=Prunella vulgaris Linn.

\*obtusifolia Raf. New Fl. N. Am. 2:32. 1836 [1837], descr.

Pennsylvania=Prunella vulgaris Linn.

\*pennsylvanica Raf. l.c., nom. (Prunella \*pennsylvanica Muhl. Cat. 57. 1813, nom.). Pennsylvania. Prob.=Prunella vulgaris Linn.

\*petiolaris Raf. Herb. Raf. 61. 1833, nom.; New Fl. N. Am. 2:30. 1836 [1837], descr. Kentucky=Prunella vulgaris Linn. var. lanceolata (Barton) Fernald.

\*reticulata Raf. New Fl. N. Am. 2:31. 1836 [1837], descr.

Ohio, Kentucky=praec. \*rosea Raf. l.c., descr.; Life of Travels 134. 1936, nom. Alleghany Mountains=? praec.

var. breviflora Raf. 1.c., nom. \*sessilifolia Raf. Herb. Raf. 79. 1833, nom.; New Fl. N. Am. 2:30. 1836 [1837], descr. Florida=? Prunella vulgaris Linn.

CALAMINTHA Linn.

\*microphyla Raf. Herb. Raf. 79. 1833, nom. Alabama or Florida.

CALOSPHACE Raf. Fl. Tellur. 3:91. 1836 [1837], (Salvia Linn. subgen. Calosphace Benth.) = Salvia Linn.

CHAMEDRYS Raf. Fl. Tellur. 3:85. 1836 [1837], descr. 32 = Chamaedrys Moench. (1794) = Teucrium Linn.

\*betonicifolia Raf. Fl. Tellur. 3:85. 1836 [1837], nom.

(Teucrium betonicaefolium Jacq.). Madeira. capitata Raf. 1.c., nom. (Teucrium capitatum Linn.). Medi-

terranean region. cretica Raf. 1.c., nom. (Teucrium creticum Linn.). Mediter-

ranean region. latifolia Raf. 1.c., nom. (Teucrium latifolium Linn.). Medi-

terranean region.

montana Raf. l.c., nom. (Teucrium montanum Linn.). Europe. nissoliana Raf. l.c., nom. (Teucrium nissolianum Linn.). Mediterranean region.

polium Raf. l.c., nom. (Teucrium polium Linn.). Mediterranean region.

pumila Raf. 1.c., nom. (Teucrium pumilum Linn.). Spain. quadrula Raf. 1.c., nom. (Teucrium quadratulum Sibth. & Sm.).

tetonicifolia Raf. ex Jacks\*. Ind. Kew. 1:503. 1893, sphalm.= C. betonicifolia Raf.

#CHEILYCTIS Raf. Med. Fl. 2:37. 1830, descr., subgen.

Monarda Linn. (Type Monarda punctata Linn.); Benth.

Lab. Gen. Sp. 726. 1836, ut sect. Monarda Linn.; Raf. ex

McClint. & Epling, Univ. Calif. Publ. Bot. 20:176. 1942,
in syn., ut gen. "Jour. Phys. 89:99. 1819" (non in op. cit.) Monarda Linn., sect. Coryanthus Nutt. (1834) = Monarda

CLUERIA Raf. Fl. Tellur. 3:87. 1836 [1837], descr. = Eremostachys Bunge (1830)

laciniata Raf. 1.c., nom. [Phlomis laciniata Linn.]. Asia Minor =Eremostachys laciniata (Linn.) Bunge.

CODANTHERA Raf. Fl. Tellur. 3:90. 1836 [1837], descr.=

Salvia Linn.

biflora Raf. I.c., descr. (Salvia biflora Ruiz & Pavon; S. tubiflora Sm.). Peru. glabra Raf. 1.c., descr. (Salvia strictiflora Hook. Bot. Mag.

59: t. 3135. 1832). Peru. COLLINSONIA Linn.

\*angustifolia Med. Fl. 1:114. 1828, descr., iter. Man. Med. Bot. 114. 1841. Ohio, Kentucky.

\*bicolor Raf. ex M'Murtrie, Sketch. Louisv. 215. 1819, nom. Kentucky. Prob.=C. heterophylla Grah.

\*cordata Raf. Herb. Raf. 68. 1833, nom. Alleghany Moun-

\*grandiflora Raf. 1.c., nom. Alleghany Mountains. \*heterophyla Raf. l.c., nom. Alleghany Mountains. \*longiflora Raf. Med. Fl. 1:112. 1828, nom., iter. Man. Med.

Bot. 112. 1841.

verticillaris Raf. Fl. Ludovic. 41. 1817, descr. (Collinsonia scabriuscula sensu Rob. Voy. Louis. 3:390. 1807); Med. Fl. 1:112. 1828, nom., iter. Man. Med. Bot. 112. 1841. Louisiana=Micheliella verticillata (Baldw.) Briq.

CROLOCOS Raf. Fl. Tellur. 3:93. 1836 [1837], descr. = Salvia Linn.

aurea Raf. ex Jacks\*. Ind. Kew. 1:646. 1893 (Salvia aurea Linn.). South Africa. calicina Raf. ex Jacks\*. l.c. (Salvia calycina Sibth & Sm.).

Greece.

colorata Raf. ex Jacks\*. 1.c. (Salvia colorata Linn.). South Africa.

†pomifera Raf. Aut. Bot. 122. 1840, nom. (Salvia pomifera Linn.). Crete, Syria.

\*DEMOSTHENIA Raf. Car. Nuov. Gen. Sp. Sicil. 79. 1810, nom. nov. Marrubiastrum Moench. = Sideritis Linn.

DIALLOSTEIRA Raf. Neogen. 2. 1825, descr.=Collinsonia Linn.

punctata Raf. ex Jacks\*. Ind. Kew. 1:741. 1893 (Collinsonia punctata Ell.). Southeastern United States.

DICTILIS Raf. Fl. Tellur. 3:89. 1836 [1837], descr.=Otostegia Benth. (1834).

molucoides Raf. 1.c., descr. (Phlomis moluccoides Vahl; Clinopodium fruticosum Forsk.). Arabia=Otostegia fruticosa (Forsk.) Schweinf.

DIODEILIS Raf. Fl. Tellur. 3:82. 1836 [1837], nom. alt. Rafinesquia Raf. 1.c., non Rafinesquia Raf. op. cit. 2:96. 1836 [1837]; New Fl. N. Am. 3:51. 1836 [1838], nom. alt. Rafinesquia Raf.=Clinopodium Linn. coccinea Raf. Fl. Tellur. 3:83. 1836 [1837], nom. alt. Rafines-

quia coccinea Raf. 1.c. (Cunila coccinea Nutt. ex Hook.; Melissa coccinea Spreng.; Gardoquia hookeri Benth.). Florida = Clinopodium coccineum (Nutt.) O. Kuntze (Satureia coccinea Bertol.).

\*DIODONTOCHEILIS Raf. l.c., nom.=praec.

\*DISELDIA Raf. Fl. Tellur. 3:83. 1836 [18. Rafinesquia (Diodeilis) Raf. Florida. Quid? 1836 [1837], nom. sub

\*DORICLEA Raf. Fl. Tellur. 3:89. 1836 [1837], descr.=Leucas R. Br. (1810).

\*indica Raf. 1.c., nom. (Phlomis indica Linn.). "India" fide Linnaeus [Madagascar fide de Candolle] = Leucas indica (Linn.) R. Br.

DRACOCEPHALUM Linn.

nervosum Raf. Fl. Ludovic. 43. 1817, descr. (Dracocephale 1, 2, Rob. Voy. Louis. 3:393. 1807). Louisiana.

ELBUNIS Raf. Fl. Tellur. 3:88. 1836 [1837], descr.=Ballota

alba Raf. op. cit. 89, nom. (Phlomis alba Forsk.). Arabia= Ballota ? forskahlei Benth.

ELELIS Raf. Fl. Tellur. 3:92. 1836 [1837], descr.=Salvia Linn.

austriaca Raf. op. cit. 93, nom., nota (Salvia austriaca Jacq.). Europe.

ELSHOTZIA Brongn. = Elsholtzia Willd. (1790).

\*cristata Raf. Aut. Bot. 121. 1840, nom. (Hyssopus ocymifolius Lam.; Mentha ovata Cav.). Siberia=Elsholtzia cristata Willd.=E. patrina (Lepech.) Garcke.
\*ELSCHOZIA Raf. Fl. Tellur. 2:92. 1836 [1838], nom.=praec.

EMPEDOCLIA Raf. Car. Nuov. Gen. Sp. Sicil. 79. 1810, descr.; Stat. Gen. Sicil. 27. 1810, nom.; Fl. Tellur. 1:16. 1836 [1837], nom.=Sideritis Linn.

montana Raf. Car. Nuov. et Stat. Gen. 11.cc., descr., nom.; Specch. Sci. 2:45. 1814, nom., nota. Sicily = Sideritis sicula Ucria.

ENEODON Raf. Fl. Tellur. 3:88. 1836 [1837], descr.=Leucas R. Br. (1810).

urticifolia Raf. 1.c., nom. (Phlomis urticifolia Vahl). Arabia, Africa=Leucas urticaefolia (Vahl) R. Br.

ENIPEA Raf. Fl. Tellur. 3:92. 1836 [1837], descr.=Salvia

formosa Raf. 1.c., descr. (Salvia formosa L'Hérit. Stirp. Nov. 41. t. 21. 1785; Curtis, Bot. Mag. 11: t. 376. 1797; Salvia nodosa Ruiz & Pavon Fl. Peruv. 1:25. 1798); Aut. Bot. 122. 1840, nom. Peru=Salvia leonuroides Gloxin.

**EPIADENA** Raf. Fl. Tellur. 3:94. 1836 [1838], descr. = Salvia Linn.

bicolor Raf. 1.c., descr. (Salvia bicolor Lam.; Desf. Fl. Atl. 1: t. 2. 1798; Salisb. Parad. Lond. 2: t. 113. 1807). North Africa.

<sup>32</sup> With the exception of the first name all are entered in Index Kewensis 1:503. 1893 under Chamaedrys Moench.

†EUHEMUS Raf. Med. Fl. 2: 27. 1830, sub Lycopus virginicus Linn., descr., subgen. Lycopus Linn.; New Fl. N. Am. 4:94. 1836 [1838], nom. in obs. ut gen.; op. cit. 97, nom.; Aut. Bot. 115. 1840, descr.; Pennell, Bull. Torr. Bot. Club. 48: 94. 1921, nom. = Lycopus Linn.

officinalis Raf. Aut. Bot. 115. 1840, descr. (Lycopus virginicus Linn.); Pennell, Bull. Torr. Bot. Club 48:94. 1921, nom.

Canada to Louisiana=Lycopus virginicus Linn.

var. gracilis Raf. Aut. Bot. 116. 1840, nom. latifolius Raf. l.c., nom.

microphylus Raf. l.c., nom.

ruber Raf. l.c., nom. \*surculosus Raf. op. cit. 115, nom. alt. L. officinalis Raf. East-

ern North America=Lycopus virginicus Linn.
\*sylvaticus Raf. op. cit. 116, 1840, descr. Kentucky, Ohio.
\*uniflorus Raf. 1.c., descr. (Lycopus uniflorus Michx.). Alleghany Mountains.

#EUPALUS Raf. Fl. Tellur. 3:88. 1836 [1837], nom., subgen. Leonotis Linn. (Type L. caribea Raf.)=Leucas R. Br.

EURIPLES Raf. Fl. Tellur. 3:94. 1836 [1837], descr.=Salvia Linn.

rugosa Raf. 1.c., nom. (Salvia sibthorpii Sibth. & Sm. Fl. Graec. 1:17. t. 22. 1806). Greece.

EUSTERALIS Raf. Fl. Tellur. 2:95. 1836 [1837], descr.; op. cit. 3:7. 1836 [1837], nom., nota=Dysophylla Blume (1826).

pumila Raf. l.c., descr. (Mentha pumila Grah.; Mentha verticillata Roxb.; Hook. Bot. Mag. 56: t. 2907. 1829). Nepal=Dysophylla verticillata (Roxb.) Benth.

FENIXANTHES Raf. Aut. Bot. 122. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:94. 1921, nom.=Salvia Linn. splendens Raf. l.c., descr. (Salvia splendens Ker-Gawl.); Pennell, l.c., nom. Texas.

FLIPANTA Raf. Fl. Tellur. 3:92. 1836 [1837], descr.=Salvia

ovata Raf. 1.c., descr. (Salvia spielmanni Scop. Del. Fl. Faun. Insub. 3:31. t. 15. 1788). Africa=Salvia viridis Linn.

GALEOPSIS Linn. †montana Raf. Herb. Raf. 68. 1833, nom.; New Fl. N. Am.

2:21. 1836 [1837], descr.; Aut. Bot. 116. 1840, nom. Oquago Mountains, New York. GLECHOMA Linn.

\*riparia Raf. First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom. Kentucky.

rotundifolia Raf. Atl. Jour. 1:177. 1833, descr.; Herb. Raf. 23. 1833, descr. Texas.

GLUTINARIA Raf. Fl. Tellur. 3:93. 1836 [1837], descr., gen. vel. subgen. = Salvia Linn.

\*acuminata Raf. Aut. Bot. 122. 1840, descr. Siberia.
glutinosa Raf. ex Jacks\*. Ind. Kew. 1:1026. 1893 (Salvia glutinosa Linn.). Europe.

\*sagittata Raf. Aut. Bot. 122. 1840. nom. nov. Salvia glu-tinosa Linn. Europe.

GNOTERIS Raf. Sylva Tellur. 76. 1838, descr. (Mesosphaerum P. Browne, 1756) = Hyptis Jacq. (1786), nom. conserv. (Mesosphaerum P. Brown, 1756; Condea Adans., 1763).

cordata Raf. 1.c., descr. (Ballota suaveolens Linn.). South America=Hyptis suaveolens (Linn.) Poir.

villosa Raf. 1.c., descr. (Ballota suaveolens sensu Sw.). Jamaica=Hyptis suaveolens (Linn.) Poir.

HEMATODES Raf. Fl. Tellur. 3:93. 1836 [1837] (Type Salvia hematodes Linn.) = Salvia Linn.

indica Raf. ex Jacks\*. Ind. Kew. 1:1125. 1893 (Salvia indica Linn.). "India" [Syria] (Salvia brachycalyx Boiss.).

HEMISODON Raf. Fl. Tellur. 3:88. 1836 [1837], descr.=

Leonotis R. Br. (1811). leonurus Raf. I.c., nom. (Phlomis leonurus Linn.; Leonotis leonurus R. Br.; Curtis, Bot. Mag. 13: t. 478. 1800); Aut. Bot. 118. 1840, nom. South Africa=Leonotis leonurus

(Linn.) R. Br. HEMISTEGIA Raf. Fl. Tellur. 3:89. 1836 [1837], descr.= Salvia Linn.

mexicana Raf. op. cit. 90, descr. (Salvia mexicana Linn.); Aut. Bot. 121. 1840, nom. Mexico.

HEPTRILIS Raf. Fl. Tellur. 3:89. 1836 [1837], descr.=Leucas

R. Br. (1810).

glabrata Raf. 1.c., nom. (Phlomis glabrata Vahl; Leucas glabrata R. Br.). Arabia=Leucas glabrata (Vahl) R. Br.

HERSILIA Raf. Fl. Tellur. 3:88. 1836 [1837], descr.=Phlomis

biloba Raf. l.c., nom. (Phlomis biloba Desf. Fl. Atl. 2:25. t. 127. 1800). Mediterranean region=Phlomis crinita Cav.

**HETREPTA** Raf. Fl. Tellur. 3:88. 1836 [1837], descr.=Leucas R. Brown (1810).

lavandulifolia Raf. 1.c., nom. (Leucas lavandulaefolia Sm.). India.

HYPOGON Raf. Fl. Ludovic. 41. 1817, nom., nota, subgen. vel gen., sub Collinsonia Linn.; op. cit. 148, nom., nota, ut gen., sub Collinsonia verticillata Raf.; Am. Monthly Mag. Crit. Rev. 3:101, 1818, nom., nota (Collinsonia anisata Sims); op. cit. 4:190. 1819, nom., nota (Collinsonia spp.); Med. Fl. 1:112. 1828, nom., nota, iter. Man. Med. Bot. 112. 1841, "subgenus—perhaps—a genus"=Micheliella Briq. (1897).

anisatum Raf. Fl. Ludovic. 148. 1817, nom. Collinsonia anisatum.

sata Sims); First Cat. Bot. Gard. Transylv. Univ. 14, 1824, nom.; Med. Fl. 2:230. 1830, nom. Southeastern United

States=Micheliella anisata (Sims) Briq.
\*verticillatum Raf. Fl. Ludovic. 148. 1817, nom., nota (Collinsonia verticillaris Raf. op. cit. 41). Louisiana. Prob.= Micheliella verticillata (Baldw.) Briq.

HYSSOPUS Linn.

\*trilobus Kin ex Raf. Aut. Bot. 117. 1840, nom., in nota sub Leonurus cuneifolius Raf.=Leonurus sibiricus Linn.

ISANTHUS Michx.

\*ceruleus Raf. Western Rev. Miscel. Mag. 1:94. 1819, nom.; First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom. Kentucky=I. caeruleus Michx.

†multiflorus Raf. Herb. Raf. 67, 1833, nom.; New Fl. N. Am. 2:35. 1836 [1837], descr. Kentucky (Wasioto or Cumberland Mountains).

†pubescens Raf. ll.cc., nom., descr. Kentucky (Wasioto or Cumberland Mountains).

†pumilus Raf. Herb. Raf. 62. 1833, nom.; New Fl. N. Am. op. cit. 34, descr. Western Kentucky and Tennessee.

ISODECA Raf. Fl. Tellur. 3:88. 1836 [1837], descr.=Leucas R. Br. (1810).

flaccida Raf. 1.c., descr. (Leucas flaccida R. Br.). India. KIOSMINA Raf. Fl. Tellur. 3:92. 1836 [1837], descr. = Salvia Linn.

hispanica Raf. Aut. Bot. 121. 1840, nom. (Salvia hispanica Linn.). Tropical America.

LARNASTYRA Raf. Fl. Tellur. 3:92. 1836 [1837], descr.= Salvia Linn.

claytoni Raf. 1.c., nom. [Salvia claytoni Nutt.]; Aut. Bot. 121. 1840, nom. Maryland.

\*cuneifolia Raf. Aut. Bot. 122. 1840, descr. Alleghany Moun-

indica Raf. Fl. Tellur. 3:92. 1836 [1837], nom. [Salvia indica Linn.]. "India" [Syria] (Salvia brachycalyx Boiss.).
 lyrata Raf. 1.c., nom. [Salvia lyrata Linn.]. Eastern United

States.

urticifolia Raf. 1.c., nom. [Salvia urticifolia Linn.]; Aut. Bot. 121. 1840, nom. Delaware to Kentucky and Alabama. var. ternifolia Raf. Aut. Bot. 1.c., nom. verbenacea Raf. Fl. Tellur. 1.c., nom. [Salvia verbenacea

Linn.]. Europe to western Asia.

\*LASEMIA Raf. Fl. Tellur. 3:91. 1836 [1837], descr.; Aut. Bot. 121. 1840, nom.=Salvia Linn.

\*coccinea Raf. l.c., descr. (Salvia grahami Benth. Bot. Reg. 16: t. 1370. 1830); Aut. Bot. l.c., nom. (Salvia grahami Benth.). Mexico.

LAVANDULA Linn.

\*stechas Raf. First Cat. Bot. Gard. Transylv. Univ. 18. 1824, nom.=L. stoechas Linn. Mediterranean region.

LEONOTIS R. Br.

capensis Raf. Fl. Tellur. 3:88. 1836 [1838], nom. (Phlomis leonitis Linn.). South Africa=Leonotis leonitis (Linn.) R. Br.

caribea Raf. 1.c., nom. [Phlomis caribaea Jacq.]. West Indies=Leucas martinicensis (Jacq.) R. Br.

LEONURUS Linn.

\*cuneifolius Raf. Aut. Bot. 117. 1840, descr. Siberia and Pennsylvania to Ohio=Leonurus sibiricus Linn.

\*multifidus Raf. op. cit. 116, descr. New Jersey to Kentucky= Leonurus cardiaca Linn.

\*reticulatus Raf. op. cit. 117, descr. Alleghany Mountains. LEUCASIA Raf. Fl. Tellur. 3:88. 1836 [1837], descr., nom. nov. Leucas R. Br. (1810).

zeylanica Raf. ex Jacks\*. Ind. Kew. 2:70. 1804 (Leucas zey-

lanica R. Br.). Asia.

LYCOPUS Linn.

\*amplectens Raf. Aut. Bot. 115. 1840, descr. Alabama (L. sessilifolius A. Gray, 1870); see Fernald, Rhodora 45:56.

\*angustifolius Raf. ex M'Murtrie Sketch. Louisv. 220. 1819, nom.; Ann. Nat. Ann. Synop. 13. 1820, descr. Western Kentucky=? seq.

angustifolius Ell.; Raf. Aut. Bot. 115. 1840, descr. Carolina to Illinois.

var. linearis Raf. 1.c., nom.

longifolius Raf. l.c., nom. heterophyllus Raf. Med. Fl. 2:28, 1830, descr. (L. exaltatus sensu Ell.). Southeastern United States=L. americanus

var. angustatus Raf. 1.c., nom. bipinnatifidus Raf. l.c., nom. dissectus Raf. 1.c., nom.

\*integrifolius Raf. Aut. Bot. 115. 1840, descr. Carolina to Florida.

longifolius Raf. Med. Fl. 2:28. 1830, descr. (L. angustifolius Ell.). Southern and middle western United States.

var. gracilis Raf. 1.c., nom. linearifolius Raf. 1.c., nom.

pauciflorus Raf. 1.c., descr. (Lycopus pennsylvanicus Muhl.);
Aut. Bot. 115. 1840, descr. (L. pennsylvanicus). New England to Louisiana=L. europaeus Linn.
var. flexuosus Raf. 1.c., nom.

hirsutus Raf. l.c., nom.

pennsylvanicus Muhl. ex Raf. Med. Fl. l.c., nom. sub L.

pauciflorus Raf. = praec.
\*pinnatifidus Raf. Aut. Bot. 114. 1840, descr. Kentucky to Carolina and Virginia.

var. dissectus Raf. op. cit. 115, nom. heterophylus Raf. 1.c., nom. traxigonus Raf. 1.c., nom.

virginicus Linn.; Raf. Med. Fl. 2:26. 1830. Eastern United States.

var. gracilis Raf. op. cit. 27, descr. latifolius Raf. 1.c., descr. microphylus Raf. I.c., descr.

ruber Raf. 1.c., descr. sylvaticus Raf. 1.c., descr. Kentucky, Ohio.

vulgaris Pers; Raf. Med. Fl. 2:28. 1830 (Lycopus europaeus Linn.). Europe and North America=Lycopus europaeus Linn.

var. angustifolius Raf. 1.c., descr. latifolius Raf. 1.c., descr.

repens Raf. l.c., descr. (Lycopus sinuatus Ell.). trachigonus Raf. l.c., descr.

MAJORANA Mill.; Raf. Fl. Tellur. 3:86. 1836 [1837], descr.= Origanum Linn.

fragrans Raf. 1.c., nom. (Origanum majorana Linn.); Aut. Bot. 119. 1840, nom. Europe.

var. obovata Raf. Aut. Bot. 1.c., descr. Palestine, Syria. suffruticosa Raf. Fl. Tellur. 3:86. 1836 [1837], nom. (Origanum majoranoides Willd.). Europe. \*syriaca Raf. Aut. Bot. 119. 1840, nom. (Origanum syriacum Line). Suria Palesti19.

Linn.). Syria, Palestine.

tenuifolia Raf. 1.c., nom. Hab.?

MARRUBIUM Linn.

\*flexuosum Raf. Fl. Ludovic. 43. 1817, nom. nov. provis. M. vulgare sensu Raf. l.c.; Marube commun Rob. Voy. Louis. 3:392. 1807). Louisiana=Marrubium vulgare Linn. saxatile Raf. Specch. Sci. 2:134. 1814, descr.; Précis Découv. Somiol. 38. 1814, descr.; Jour. Bot. (Desv.) 4:270. 1814, nom. (M. hispanicum Lam.?); Chloris Aetn. 10. 1815, nom. Sicily.

MEGYATHUS Raf. Fl. Tellur. 3:93. 1836 [1837], descr.= Salvia Linn.

acetabulum Raf. ex Jacks\*. Ind. Kew. 2:186. 1894 (Salvia acetabulosa Linn.). Asia Minor.

MELLIGO Raf. Fl. Tellur. 3:92. 1836 [1837], descr.=Salvia Linn.

amena Raf. ex Jacks\*. Ind. Kew. 2:201. 1894 (Salvia amoena Sims). West Indies=Salvia lamiifolia Jacq.

MELISSA Linn. \*sylvatica Raf. Med. Fl. 2:242. 1830, nom.

MELOSMON Raf. Fl. Tellur. 3:85. 1836 [1837], descr.=Teu-

bicolor Raf. 1.c., nom. (Teucrium bicolor Sm.). Peru, Chili.

campanulatum Raf. 1.c., nom. (Teucrium campanulatum Linn.). Italy, Greece.

orientale Raf. 1.c., nom. (Teucrium orientale Linn.). Asia Minor.

rotundifolium Raf. 1.c., nom. (Teucrium rotundifolium Schreb.). Southern Europe=T. pyrenaicum Linn.

MENTHA Linn. \*agrestis Raf. Aut. Bot. 113. 1840, descr. Europe. Prob.=

Mentha arvensis Linn. \*capitata Raf. Herb. Raf. 50. 1833, nom.; New Fl. N. Am. 4:94. 1836 [1838], nom.; Aut. Bot. 112. 1840, descr., Oregon.

\*Celliata Raf. Aut. Bot. 113. 1840, nom. nov. M. arvensis Linn.; New Fl. N. Am. 4:94. 1836 [1838], nom. Europe. †cinerea Raf. Herb. Raf. 68. 1833, nom.; Life of Travels 121. 1836, nom.; New Fl. N. Am. 4:94. 1836 [1838], descr.; Aut. Bot. 112. 1840, nom. Pennsylvania. \*dentata Raf. New Fl. N. Am. 4:94. 1836 [1838], nom. [North America]

[North America].

farinosa Raf. Fl. Ludovic. 10, nom., 42, descr., 1817 (Menthe panachée Rob. Voy. Louis. 3:380. 1807). Louisiana. \*glauca Raf. Aut. Bot. 114. 1840, descr. Alleghany Moun-

tains.

var. parvifolia Raf. l.c., descr. Pennsylvania.
\*lycopoides Raf. l.c., descr. Ohio, Kentucky.
\*obliqua Raf. op. cit. 113. descr. Siberia.
\*pectinata Raf. New Fl. N. Am. 4:94. 1836 [1838], nom.;
Aut. Bot. l.c., descr. Bohemia (Carpathian Mountains).
\*trachiloma Raf. New Fl. N. Am. 4:94. 1836 [1838], nom.

\*traxigona Raf. Aut. Bot. 114. 1840, descr. Lake Erie to Illinois.

MONARDA Linn.

\*citriodora Raf. Fl. Ludovic. 10, nom., 40, 1817, descr. (Monarde vulg. citronelle Rob. Voy. Louis. 3:40. 1807); Med. Fl. 2:39. 1830, descr. Louisiana. An M. citriodora Cerv. (1816)?

coccinea Michx.; Raf. Med. Fl. 2:35. f. 64. 1830, descr.; Casket 1831:89. 1 f. 1831, descr.; Sat. Eve. Post 10(503): [4]. 1831, descr. North America = M. didyma Linn. var. angustifolia Raf. Med. Fl. op. cit. 63, descr.

cordata Raf. l.c., descr. didyma Raf. 1.c., descr. grandiflora Raf. 1.c., descr.

prolifera Raf. 1.c., descr. †pratensis Raf. Western Minerva 41. 1821, nom., iter. Fox, Science II. 12:213. 1900; Med. Fl. 2:37. 1830, descr.

rigida Raf. Med. Fl. 1.c., descr.; Atl. Jour. 1:16. 1832, descr. Western Kentucky=M. bradburyiana Beck (1826)=M. russeliana Nutt. ex Sims 1824, non Nutt. 1835-36.

\*saxatilis Raf. First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom. Kentucky

virgata Raf. Med. Fl. l.c., descr. Illinois, Arkansas (M. russeliana Nutt. 1835-36, non Nutt. ex Sims, 1824); see Fernald, Rhodora 46:492. 1944.

MONIPSIS Raf. Fl. Tellur. 3:85. 1836 [1837], descr. = Teucrium

orchidea Raf. 1.c., descr. (Teucrium orchideum Lindl. Bot. Reg. 15: t. 1255. 1829). Chile=T. bicolor Sm.

NEPETA Linn. \*levigata Raf. Aut. Bot. 119. 1840, descr. Illyria.

\*lupulina Raf. op. cit. 120, descr. (N. tuberosa Linn.?). Lusitania.

\*origanifolia Raf. op. cit. 119, descr. (N. incana Sieber). Crete=Calamintha cretica Benth.

NOSTELIS Raf. Sylva Tellur. 76. 1838, descr.=Micromeria Benth. (1829).

arborea Raf. 1.c., descr. (Satureia viminea Linn. "var." Sw. [Obs. Bot. 227. 1791]). Jamaica=Micromeria viminea (Linn.) Druce.

minor Raf. 1.c., descr. (Satureia viminea sensu Sw.). Jamaica=Micromeria viminea (Linn.) Druce.

viminea Raf. 1.c., descr. (Satureia viminea Linn.). West Indies=Micromeria viminea (Linn.) Druce.

#NOTERIAS Raf. Sylva Tellur. 76. 1838, nom., nota, subgen. Gnoteris Raf. (Type Ballota disticha Linn.) = Anisomeles R. Br. (1810). OBOSKON Raf. Fl. Tellur. 3:93. 1836 [1837], descr.=Salvia

Linn.

cretica Raf. ex Jacks\*. Ind. Kew. 2:323. 1894 (Salvia cretica Linn.). Crete.

ONITES Raf. Fl. Tellur. 3:86. 1836 [1837], descr.=Origanum

tomentosa Raf. 1.c., nom. (Origanum onites Linn.). Southern Europe, Asia Minor.

ORIGANUM Linn.

\*egyptiacum Raf. Fl. Tellur. 3:86. 1836 [1837], nom.=O. aegyptiacum Linn. Egypt, Arabia.

vulgare Linn. Europe. var. americanum Raf. Aut. Bot. 119. 1840, descr. Canada to Pennsylvania.

humile Raf. op. cit. 118, nom. Siberia. rotundifolium Raf. op. cit. 119, descr. Germany.

ORMIASTIS Raf. Fl. Tellur. 3:93. 1836 [1837], descr.=Salvia

pinnata Raf. ex Jacks\*. Ind. Kew. 2:367. 1894 (Salvia pinnata Linn.). Asia Minor.

ORMILIS Raf. Fl. Tellur. 3:94. 1836 [1837], descr.=Salvia Linn.

horminum Raf. ex Jacks\*. Ind. Kew. 2:367. 1894 (Salvia horminum Linn.). Mediterranean region.

viridis Raf. ex Jacks\*. l.c. (Salvia viridis Linn.). Mediterranean region.

OROGA (Lobel.) Raf. Fl. Tellur. 3:86. 1836 [1837], nom.= Origanum Linn.

heracleotica Raf. ex Jacks\*. Ind. Kew. 2:376. 1894, nom. (Origanum heracleoticum Linn.). Europe=Origanum vulgare Linn.

\*hereaclontica Raf. Fl. Tellur. 1.c., nom., sphalm.=praec.

PANZERIA Moench=Leonurus Linn.

\*angustifolia Raf. Aut. Bot. 117. 1840, descr. (Leonurus sibiricus Linn. ?). China=Leonurus sibiricus Linn.

\*villosa Raf. 1.c., descr. (Leonurus tataricus Linn.?). Siberia= Leonurus tataricus Linn.

PERXO Raf. Aut. Bot. 121. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:94. 1921, nom. = Moschosma Reichb. (1828). polystachya Raf. 1.c., descr. (Ocimum polystachon Linn.); Pennell, 1.c., nom. India=Moschosma polystachyum (Linn.)

Benth. PHLOMIS Linn.

\*grandifolia Raf. Herb. Raf. 60. 1833, nom. Arkansas. \*reticulata Raf. Aut. Bot. 118. 1840, descr. (Phlomis pungens

Willd.). Southwestern Russia (Podolia). \*sanicala Sieber ex Raf. l.c., descr., sphalm.? an P. samia Linn.? Palestine.

PIARADENA Raf. Fl. Tellur. 3:91. 1836 [1837], descr.=Salvia Linn.

fulgens Raf. 1.c. (Salvia fulgens Cav.; Lindl. Bot. Reg. 16:
t. 1356. 1830; S. cardinalis H.B.K. Nov. Gen. Sp. Pl. 2:
310. t. 152. 1817 (ed. fol. 2:242); Aut. Bot. 121. 1840, nom. Mexico=Salvia fulgens Cav.

PILOBLEPHIS Raf. New Fl. N. Am. 3:52. 1836 [1837], descr.; Good Book 45. 1840, nom.=Satureia Linn. (Pyc-

nothymus Small, 1903). ericoides Raf. op. cit. 53, nom. alt. Piloblephis rigida Raf.

Florida = seq.rigida Raf. l.c., descr. (Satureia rigida Bartr. ex Benth.). Florida (Pycnothymus rigidus Small, 1903). PLEUDIA Raf. Fl. Tellur. 3:94. 1836 [1837], descr.=Salvia

Linn.

egyptiaca Raf. ex Jacks\*. Ind. Kew. 2:562. 1894 (Salvia aegyptiaca Linn.). Eurasia.

PLEURADENIA Raf. Neogen. 2. 1825, descr.=Collinsonia Linn.
precox Raf. ex Jacks\*. Ind. Kew. 2:562. 1894 (Collinsonia
praecox Walt.). Southeastern United States=? Collinsonia canadensis Linn. (? C. scabriuscula Ait.).

scabra Raf. ex Jacks\*. 1.c. (Collinsonia scabra Pers.). Eastern North America = C. scabriuscula Ait. = ? C. canadensis

Linn.

PRUNELLA Linn. (see Brunella Linn.).

cinerea Raf. ex Jacks\*. Ind. Kew. 2:634. 1894 (Brunella cinerea Raf.). Kentucky, Alabama, Florida=P. vulgaris Linn.

cordata Raf. ex Jacks\*. 1.c. (Brunella cordata Raf.). Alleghany Mountains=P. vulgaris Linn.

microphyla Raf. ex Jacks\*. l.c. (Brunella heterophyla Raf.).
Alleghany Mountains=P. vulgaris Linn.
microphylla Raf. ex Jacks\*. l.c. (Brunella microphylla Raf.).
Alleghany and Kiskanom Mountains=P. vulgaris Linn.

obtusifolia Raf. ex Jacks\*. 1.c. (Brunella obtusifolia Raf.).

Pennsylvania = P. vulgaris Linn.

petiolaris Raf. ex Jacks\*. l.c. (Brunella petiolaris Raf.). Kentucky=P. vulgaris Linn.

reticulata Raf. ex Jacks\*. l.c. (Brunella reticulata Raf.). Kentucky=P. vulgaris Linn.

rosea Raf. ex Jacks\*. l.c. (Brunella rosea Raf.). Alleghany Mountains=P. vulgaris Linn.

sessilifolia Raf. ex Jacks\*. 1.c. (Brunella sessilifolia Raf.).
Florida=P. vulgaris Linn.
#PSALION Raf. New Fl. N. Am. 4:94. 1836 [1838], descr.,

subgen. provis. Vleckia Raf. (Type Vleckia bracteata Raf.); Aut. Bot. 120. 1840, nom.=Lophanthus Benth.

PYCNANTHEMUM Michx. (1803), nom. conserv. (Furera Adans., 1763; Koellia Moench, 1794).

alatum Raf. Fl. Ludovic. 40. 1817, descr. (Monarde bouton Rob. Voy. Louis. 3:388, 1807). Louisiana.

rosmarinoides Raf. 1.c., descr. (Romarin nain Rob. 1.c., 388). Louisiana.

PYCNANTHES Raf. Herb. Raf. 70. 1833, nom.; New Fl. N. Am. 4:94, 95. 1836 [1838], nom.; Good Book 46. 1840, nom. =praec.

\*aristata Raf. New Fl. N. Am. 4:95. 1836 [1838], nom. [Pycnanthenium aristatum Michx.]. Eastern North Amer-

ciliata Raf. Herb. Raf. 70. 1833, nom.; New Fl. N. Am. 4: 95. 1836 [1838], descr. Pine barrens of New Jersey; Maryland.

\*glandulosa Raf. Herb. Raf. 1.c., nom.: New Fl. N. Am. 4:96. 1836 [1837], nom. Long Island, New Jersey, Chesapeake Bay, on the seashore.

\*laxiflora Raf. New Fl. N. Am. I.c., nom. Eastern North America.

parvifolia Raf. op. cit. 95, descr. Georgia, Florida. pilosa Raf. I.c., nom. [Pycnanthemum pilosum Nutt.]. Eastern North America.

\*scabra Raf. op. cit. 96, nom. Eastern North America. saxatilis Raf. I.c., descr. Alleghany Mountains of Pennsylvania.

var. cuniloides Raf. 1.c., descr.

\*PYNANTHEMUM Raf. Med. Repos. II. 5:351. 1808, nom., sphalm.=Pycnanthemum Michx. (1803).

†RAFINESQUIA Raf. Fl. Tellur. 3:82. 1836 [1837], descr.; New Fl. N. Am. 3:51. 1836 [1838], descr.=Clinopodium

angustifolia Raf. New Fl. N. Am. 3:52. 1836 [1838], descr. Alabama. Ex descr.=seq.

†coccinea Raf. Fl. Tellur. 3:83. 1836 [1837], descr. (Cunila coccinea Nutt.; Melissa coccinea Spreng.; Cardoquia hookeri Benth.; Lindl. Bot. Reg. 21: t. 1747. 1835); Fl. N. Am. 3:52. 1836 [1838], descr. Florida=Clinopodium coccineum (Nutt.) O. Kuntze (Satureja coccinea Bertol.; Calamintha coccinea Benth.).

var. obtusifolia Raf. New Fl. N. Am. l.c., descr. RHODORMIS Raf. Fl. Tellur. 3:93. 1836 [1837], descr. = Salvia Linn.

rosaefolia Raf. ex Jacks\*. Ind. Kew. 2:712. 1895 (Salvia rosaefolia Sm.). Asia Minor.

SALVIA Linn. \*alabamensis Raf. Herb. Raf. 79. 1833, nom. Alabama. ciliata Raf. Fl. Ludovic. 41. 1817, descr. [Sauge (Salvia) Rob. Voy. Louis. 3:389. 1807]. Louisiana.

\*cuneifolia Raf. Herb. Raf. 61. 1833, nom. Kentucky or Illinois.

\*deltifolia Raf. 1.c., nom. Kentucky or Illinois. \*aegyptiaca Raf. Fl. Tellur. 3:94. 1836 [1837], nom.=S. aegyptiaca Linn. Eurasia. \*forskalei Raf. Fl. Tellur. 3:94. 1836 [1837], nom.=S.

forskohlei Linn. Asia Minor.

\*glauca Raf. Herb. Raf. 1.c., nom. Kentucky or Illinois.
\*hematodes Raf. Fl. Tellur. 3:93. 1836 [1837], nom. sub.

Hematodes Raf. = Salvia haematodes Linn. Europe.
\*obovata Raf. ex Perkins. Filson Club. Hist. Quart. 12:216.

1938, nom. (Salvia lyrata Linn. var. obovata Pursh). Eastern North America.

SATUREIA Linn. fasciculata Raf. Précis Découv. Somiol. 39. 1814, descr. Sicily.

SCLAREA Moench; Raf. Fl. Tellur. 3:94. 1836 [1837], descr.= Salvia Linn. \*acuta Raf. Aut. Bot. 122. 1840, descr. Siberia?

SCLAREA (continued).

spinosa Raf. ex Jacks\*. Ind. Kew. 2:844. 1895 (Salvia spinosa

Linn.). Arabia, Mesopotamia.

tingitana Raf. ex Jacks\* I.c. (Salvia tingitana Etling.).

Morocco=S. foetida Lam.

triloba Raf. ex Jacks\*. I.c. (Salvia triloba Linn. f.). East-

ern Europe, Asia Minor.

SCORBION Raf. Fl. Tellur. 3:85. 1836 [1837], descr.= Teucrium Linn.

spinosum Raf. 1.c., nom. (Teucrium spinosum Linn.). Mediterranean region.

SCORODONIA Adans. = Teucrium Linn.

\*algeriensis Raf. Specch. Sci. 2:171. 1814, nom. (Teucrium pseudo-scorodonia Desf.). Western Mediterranean region. pseudo-scorodonia Desf.). Western Mediterranean region. \*hircanica Raf. l.c., nom. (Teucrium hircanicum Linn.) Caucasus region, Persia.

†sicula Raf. 1.c., descr.; Fl. Tellur. 3:85. 1836 [1837], nom.

Sicily.

trivialis Raf. Fl. Tellur. 3:85. 1836 [1837], nom. Hab.? \*vulgaris Raf. Specch. Sci. 2:171. 1814, nom. (Teucrium scorodonia Linn.). Europe.

SCUTELLARIA Linn.

†cordifolia Muhl. Cat. 56. 1813, nom. subnud.; Raf. Fl. Ludovic. 138. 1817, nom., nota; Benth. in DC. Prodr. 12: 422. 1848, nom. in syn. sub Scutellaria versicolor Nutt. Eastern North America = S. ovata Hill (1768).

deltoidea Raf. Fl. Ludovic. 43. 1817, descr. (Toque 1, Rob. Voy. Louis. 3:393. 1807). Louisiana.

hastata Raf. op. cit. 44, descr. (Toque 2, Rob. op. cit. 394). Louisiana.

lateriflora Linn. Eastern North America. var. membranacea Raf. Med. Fl. 2:82, 1830, nom.: Casket 1831:332. 1831, nom.; Sat. Eve. Post 10(520): [4]. 1831, nom.

pumila Raf. 11.cc., nom. ramosissima Raf. 11.cc., nom. rubescens Raf. 11.cc., nom.

\*macrophylla Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818,

\*nom. Alleghany Mountains or Ohio.

\*nemorosa Raf. op. cit. 2:120. 1817, descr.; Fl. Ludovic. 170. 1817, nom. Long Island (Flatbush)=S. elliptica Muhl. (1793); see Fernald, Rhodora 47:201. 1945.

†parviflora Raf. op. cit. 3:356. 1818, nom.; M'Murtrie, Sketch. Louisv. 225. 1819, nom.; First Cat. Bot. Gard. Sketch. Louisv. 223. 1819, nom.; First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom.; Herb. Raf. 60. 1833, nom.; A. Ham. Monogr. Scutell. 37. 1832, nom. in syn. sub Scutellaria gracilis Nutt. Alleghany Mountains, Ohio, Kentucky = S. nervosa Pursh.

radicata Raf. Atl. Jour. 1:16. 1832, descr. Ohio River. \*ramulosa Raf. Herb. Raf. 60. 1833, nom. Kentucky or Illinois.

\*tenuifolia Raf. op. cit. 51, nom. Rocky Mountains or Oregon.

villosa Raf. Atl. Jour. 1:17. 1832, descr. Indiana, Kentucky. SOBISCO Raf. Fl. Tellur. 3:94. 1836 [1837], descr.=Salvia Linn.

japonica Raf. ex Jacks\*. Ind. Kew. 2:928. 1895 (Salvia ja-ponica Thunb.). Japan.

STACHYS Linn.

crenata Raí. Fl. Ludovic. 42. 1817, descr. (Stachide laineuse à feuilles oblongues Rob. Voy. Louis. 3:392. 1807). Loui-

dasyanthes Raf. Précis Découv. Somiol. 39. 1814, descr.:

Jour. Bot. (Desv.) 4:270. 1814, descr. Sicily.
\*feniculum Raf. Aut. Bot. 121. 1840, nom. sub Vleckia discolor Raf. Eastern North America=Stachys foeniculum Pursh=Agastache foeniculum (Pursh) O. Kuntze.

\*levicaulis Raf. Herb. Raf. 50. 1833, nom. Rocky Mountains or Oregon.

longifolia Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818, nom. sphalm. "Staelry" longifolia. Alleghany Mountains or Ohio.

\*mollis Raf. Herb. Raf. 50. 1833, nom. Rocky Mountains or Oregon.

revoluta Raf. Atl. Jour. 1:148. 1832, descr. Florida, Loui-

sessiliflora Raf. l.c., descr. Florida. \*STYSSOPUS Raf. Am. Monthly Mag. Crit. Rev. 4:194. 1819, nom. sphalm.=Hyssopus Linn.

TEREPIS Raf. Fl. Tellur. 3:94. 1836 [1837], descr.=Salvia Linn.

forskalei Raf. ex Jacks\*. Ind. Kew. 2:1046. 1895 (Salvia forskohlei Linn.). Asia Minor.

TEUCRIUM Linn.

\*bracteatum Raf. Herb. Raf. 61. 1833, nom. Kentucky or

\*bracteosum Raf. New Fl. N. Am. 4:97. 1836 [1838], descr. (T. virginicum auct.). New Jersey, Pennsylvania, Virginia=Teucrium canadense Linn.

\*chamepytis Raf. Med. Fl. 2:267. 1830, nom., sphalm.=

T. chamaepitys Linn. Europe. cinereum Raf. New Fl. N. Am. 4:98. 1836 [1838]. descr. Cumberland and Cheroki Mountains, eastern Kentucky and

Tennessee. \*fruticosum Raf. Fl. Tellur. 3:85. 1836 [1837], nom. [T. fruticans Linn.]. Mediterranean region.

\*glabrum Raf. Herb. Raf. 61. 1833, nom. Kentucky or Illinois.

lanceolatum Raf. & Collins New Fl. N. Am. 4:97. 1836

[1838], descr. New Jersey to Virginia. levigatum Raf. op. cit. 96, descr. Central Western United

States. \*obliquatum Raf. op. cit. 98, nom. nov. Teucrium virginicum Linn. Eastern North America=T. canadense Linn.

petiolare Raf. op. cit. 97, descr. Long Island, New Jersey, Virginia.

riparium Raf. 1.c., nom. nov. Teucrium canadense Linn. Eastern North America.

\*tomentosum Raf. Herb. Raf. 61. 1833, nom.
undulatum Raf. Fl. Ludovic. 42. 1817, descr. (Germandrée
Rob. Voy. Louis. 3:390. 1807). Louisiana.
THYMUS Linn.

hirtus Raf. Car. Nuov. Gen. Sp. Sicil. 80. 1810, descr., Stat. Gen. Sicil. 28. 1810, nom. Sicily.

\*TORRCYA Raf. Fl. Tellur 1:89. 1836 [1837], nom., sphalm.=

TORREYA Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818, descr.; op. cit. 4:194. 207. 1819, nom., nota (Synandra Nutt., 1818); Fl. Tellur. 1:16. 1836 [1837], nom.; Jour. Phys. Chim. Hist. Nat. 89:259. 1819, nom.; Good Book 61. 1840, nom., nota (Synandra Nutt. 1818), non Torreya Raf. 1819=Synandra Nutt. (1818).

grandiflora Raf. Am. Monthly Mag. Il.cc., nom. (Lamium hispidulum Michx.; Synandra grandiflora Nutt.). Eastern North America—Synandra hispidula (Michx.) Baill.

TRAMBIS Raf. Fl. Tellur. 3:87. 1836 [1837], descr.=Phlomis Linn.

alpina Raf. 1.c., nom. (Phlomis alpina Pallas). Siberia. tuberosa Raf. I.c., nom. (Phlomis tuberosa Linn.); Aut. Bot. 118. 1840, nom. Europe, Asia.

TRICHOSTEMA Linn.

\*roseum Raf. Herb. Raf. 68. 1833, nom.; Life of Travels 126. 1836, nom. Alleghany Mountains of Pennsylvania. 
\*TRICHOSTEMUM Raf. First Cat. Bot. Gard. Transylv. Univ.

16. 1824, nom. Prob. = Trichostema Linn.

\*angustifolium Raf. l.c., nom. Kentucky. TRIXAGO Raf. Fl. Tellur. 3:85. 1836 [1837], descr. (Iva Dill.,

non Linn.), non Hall. (1768) = Teucrium Linn. botrys Raf. 1.c., nom. [Teucrium botrys Linn.]. Europe, North Africa.

\*scordium Raf. l.c., nom. [Teucrium scordium Linn.]. Eurasia, North Africa.

\*TULLYA Raf. New Fl. N. Am. 4:95. 1836 [1838], nom., nota=Tullia Leavenw. (1830)=Pycnanthemum Michx. (1803), nom. conserv. (Furera Adans., 1763; Koellia Moench,

#VIMENERBA Raf. Fl. Tellur. 3:86. 1836 [1837], descr., subgen. provis. Ajuga Linn. (Type, Teucrium salicifolium Linn.)=Ajuga Linn.

\*VLECHIA Raf. Fl. Tellur. 3:89. 1836 [1837], nom. sub Vleckia Raf., sphalm.=seq.

VLECKIA Raf. Med. Repos. II. 5:352. 1808, nom. (Hyssopus nepetoides Linn.); Jour. Bot. (Paris) 2:170. 1809, nom.; Am. Monthly Mag. Crit. Rev. 2:267. 1818, nom., nota (Hyssopus nepetoides Linn.); op. cit. 4:194. 1819, nom.; Fl. Tellur. 3:89. 1836 [1837], descr.; New Fl. N. Am. 4:94. 1836 [1838], nom.=Lophanthus Benth. 1829 (non Forst. 1776)

1776) = Agastache (Clayton) O. Kuntze (1891). \*alba Raf. Fl. Tellur. 3:89. 1836 [1837], nom.=V. albescens Raf.?

\*albescens Raf. Aut. Bot. 121. 1840, descr. Pennsylvania to

\*angustifolia Raf. Herb. Raf. 68. 1833, nom. Alleghany

Mountains.

anisata Raf. Fl. Tellur. 3:89. 1836 [1837], nom. (Lophanthus anisatus Benth.). Central United States = Agastache foenicubracteata Raf. Herb. Raf. 62. 1833, nom.; New Fl. N. Am.

4:94. 1836 [1838], descr. Florida.
\*bracteosa Raf. Aut. Bot. 120. 1833, descr. Florida.
†chinensis Raf. Fl. Tellur. 3:89. 1836 [1837], nom. (Lophanthus chinensis Benth. 88). China.

\*cordata Raf. Herb. Raf. 68. 1833, nom.; Fl. Tellur. 3:89.

\*cordifolia Raf. Herb. Raf. 62. 1833, nom.; Aut. Bot. 120. 1840, nom. (Hyssopus scrophulariaefolius Willd.). Pennsylvania, Kentucky=Agastache scrophulariaefolius (Willd.) O. Kuntze.

\*discolor Raf. Aut. Bot. 121, 1830, descr. (Hyssopus anisatus Nutt.; Stachys foeniculum Pursh). Missouri=Agastache

foeniculum (Pursh) O. Kuntze.

\*incarnata Raf. op. cit. 120, descr. Pennsylvania. multiflora Raf. Fl. Tellur. 3:89. 1836 [1837], nom. (Nepeta

sp.) Hab.?

nepetoides Raf. Med. Repos. II. 5:352. 1808, nom. (Hyssopus nepetoides Linn.); Jour. Bot. (Paris) 2:170. 1809, nom.; Fl. Tellur. 3:89. 1836 [1837], nom. (Lophanthus nepetoides Linn.); Aut. Bot. 120. 1840, nom., nota (Hyssopus nepetoides Linn.); A. Gray, Am. Jour. Sci. 40:228. 1841, nom. New England to Missouri=Agastache nepetoides (Linn.)

\*parvifolia Raf. Fl. Tellur. 3:89. 1836 [1838], nom. Hab.? \*scariosa Raf. Herb. Raf. 62. 1833, nom. Kentucky or Illinois. scrophularifolia Raf. Fl. Tellur. 3:89. 1836 [1837], nom. (Lophanthus scrophulariaefolius Benth.). Eastern North America = Agastache scrophulariaefolia (Willd.) O. Kuntze.

urticifolia Raf. 1.c., nom. (Lophanthus urticifolius Benth.).
North America=Agastache urticifolia (Benth.) O. Kuntze.
#XEXTALIX Raf. New Fl. N. Am. 4:95, 1836 [1838], descr., nom. provis., subgen. Pycnanthes Raf. (Type, Pycnanthes parvifolia Raf.)=Pycnanthemum L. C. Rich. (1803), nom.

conserv. ZATARENDIA Raf. Fl. Tellur. 3:86. 1836 [1837], nom. (Type, Origanum aegyptiacum Linn.) = Origanum Linn.

egyptiaca Raf. ex Jacks\*. Ind. Kew. 2:1248. (Origanum aegyptiacum Linn.). Asia Minor.

# NOLANACEAE

#GASTRINA Raf. Fl. Tellur. 4:87. 1836 [1838], descr., sub-

#GASTRINA Rat. Fl. 1eliur. 4:87. 1836 [1838], descr., subgen. Nolana Linn. (Type Nolana inflata Ruiz & Pavon).
#IOHYPA Raf. Fl. Tellur. 4:87. 1836 [1838], descr., subgen. Nolana Linn. (Type Nolana prostrata Linn.).
#PERIESTA Raf. Fl. Tellur. 4:87. 1836 [1838], descr., subgen. Nolana Linn. (Type Nolana coronata Ruiz & Pavon).
PERILOBA Raf.<sup>34</sup> Fl. Tellur. 4:87. 1836 [1838] (Gubleria Gaudich., 1842-46; Sorema Lindl., 1844).

PARAGONA Raf. 1c. descr. (Nolana paradoxa Lindl. Bot Reg.

paradoxa Raf. 1.c., descr. (Nolana paradoxa Lindl. Bot. Reg. 10: t. 865. 1825; Sims, Bot. Mag. 52: t. 2604. 1825). Chile. #SPATULINA Raf. Fl. Tellur. 4:87. 1836 [1838], nom. subnud. subgen. Nolana Linn. (Type Nolana spathulata Ruiz &

# SOLANACEAE

ALICABON Raf. Sylva Tellur. 56. 1838, descr. = Physalis Linn. barbadense Raf. op. cit. 57, nom. (Physolis barbadensis Jacq.). West Indies = Physalis pubescens Linn.

somnifer Raf. op. cit. 56, nom. (Physalis somnifera Linn.) Mediterranean region=Withania somnifera (Linn.) Dun.

**AMPHIPLEIS** Raf. Fl. Tellur. 3:75. 1836 [1837], descr. = Nicotiana Linn.

fetida Raf. 1.c., descr. (Nicotiana multivalvis Lindl. Bot. Reg. 13: t. 1057. 1827). Columbia River = Nicotiana quadrivalvis Pursh.

88 Levin, Act. Inst. Bot. Komarov. 5:271. 1941, cited the name as Lophanthus chinensis "(Raf.) Benth." not realizing that Bentham originated the name eight years before Rafinesque concerned himself with it.

34 By some curious error Periloba Raf. was rejected, Nothos

cordium Kunth (1843) having been conserved against it. The latter is a liliaceous genus, and Periloba Raf. has nothing to do with it; see Johnston, Contr. Gray, Herb. 85:104-105. 1929.

quadrivalvis Raf. 1.c., nom. (Nicotiana quadrivalvis Pursh). Northwestern United States.

ANTIMION Raf. Aut. Bot. 109. 1840, descr.; Pennell, Bull. ANTIMION Kat. Aut. Bot. 109. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:94. 1921, nom.=Lycopersicum Hill (1765)=Lycopersicon Mill. (1754). tomentosum Raf. l.c., descr.; Pennell, l.c., nom. (Solanum peruvianum Jacq.?). Peru.

APEMON Raf. Fl. Tellur. 2:11. 1836 [1837], descr.=Datura

crassicaule Raf. 1.c., descr. (Datura ceratocaula Ortega; Datura macrocaulis Roth; Lindl. Bot. Reg. 12: t. 1031. 1827; Hook. Bot. Mag. 61: t. 3352. 1834). Tropical Ameriica = Datura ceratocaula Jacq.

ARTORHIZA Raf. Aut. Bot. 138. 1840, nom. nov. provis Parmentiera Raf.; Pennell, Bull. Torr. Bot. Club 48:94.

1921, nom.=Solanum Linn.

BLENCOCOËS Raf. ex Jacks\*. Ind. Kew. 1:311. 1893, sphalm.= Nierembergia Ruiz & Pavon (1794).

filicaulis Raf. ex Jacks\*. l.c. ([Siphonema filicaulis Raf.]; Nierembergia "linearifolia" Jacks. l.c., sphalm. [linariaefolia Grah.]). Chile=Nierembergia linariaefolia Grah.

longislora Raf. ex Jacks\*. 1.c. [Siphonema longislora Raf.].

Paraguay=Nierembergia calycina Hook.

\*BLENOCOES Raf. Fl. Tellur. 3:75. 1836 [1837], (Blennochois Reneaulme Spec. Hist. Nat. 38. 1611) = Nicotiana Linn.

\*glutinosa Raf. l.c., descr. (Nicotiana glutinosa Linn.); Aut.

Bot. 111. 1840, nom. Peru.

CANTALEA Raf. Sylva Tellur. 54. 1838, nom. alt. Trozelia Raf.

(1838) = Lycium Linn.

CERANTHERA Raf. Am. Monthly Mag. Crit. Rev. 2:176. 1818, nom. (Solanum heterandrum Pursh); op. cit. 4:188, 191. 1819, nom. (Androcera Nutt.); Jour. Phys. Chim. Hist. Nat. 89:257. 1819, nom. (Solanum heterandrum Pursh; Androcera Nutt.); Ann. Gén. Sci. Phys. 8:269. 1821, nom. (Androcera Nutt.); Aut. Bot. 110. 1840, nom., nota. (Androcera lobata Nutt.; Solanum heterandrum Pursh), non Beauv. (1805) = Solanum Linn.

heterandra Raf. ex Jacks\*. Ind. Kew. 1:483. 1893 (Solanum heterandrum Pursh). Missouri=Solanum rostratum Dunal

(Androcera lobata Rydb.).

CODYLIS Raf. Am. Monthly Mag. Crit. Rev. 4:191. 1819, nom., gen. vel subgen.; Jour. Phys. Chim. Hist. Nat. 89:258. 1819. nom. (Nicotiana quadrivalvis Pursh). Western United States=Solanum Linn.

DATURA Linn.

stramonium Linn.; Raf. Med. Fl. 1:147. 1828, iter. Man. Med. Bot. 147. 1841. Eastern North America. var. alba Raf. op. cit. 148, descr. angustifolia Raf. ll.cc., descr.

cordata Raf. 11.cc., descr. meteloides Raf. 11.cc., descr. physaloides Raf. 11.cc., descr. tatuloides Raf. 11.cc., descr.

DEPREA Raf. Sylva Tellur. 57. 1838, descr. = Athenaea Sendtn. (1846), nom. conserv. (Deprea Raf., 1838).

orinocensis Raf. l.c., nom. (Physalis orinocensis H.B.K.). Venezuela=Withania orinocensis (H.B.K.) Dun.

xalapensis Raf. l.c., nom. (Physalis xalapensis H.B.K.). Mexico=Athenaea xalapensis (H.B.K.) Hemsl.

DIAMONON Raf. Fl. Tellur. 2:76. 1836 [1837], descr.=Solanum Linn.

coriaceum Raf. 1.c., descr. (Solanum coriaceum Hook. Bot. Mag. 54: t. 2708. 1827). Mexico=Solanum havanense Jacq

DIPLUKION Raf. Sylva Tellur. 53. 1838, descr.=Iochroma Benth. (1845), nom. conserv. (Diplukion Raf., 1838, Valteta Raf., 1838).

cornifolium Raf. 1.c., nom. (Lycium cornifolium H.B.K.). Ecuador=Iochroma cornifolia (H.B.K.) Miers.

loxense Raf. 1.c., nom. (Lycium loxense H.B.K.). Ecuador = Iochroma loxensis (H.B.K.) Miers.

umbrosum Raf. 1.c., nom. (Lycium umbrosum H.B.K.). Co-

lombia=Iochroma umbrosa (H.B.K.) Miers.

DISKION Raf. Sylva Tellur. 55. 1838, descr., nom. nov. Saracha Ruiz & Pavon "non Lin. auct." [i.e. Saraca Linn.] = Saracha

Ruiz & Pavon (1794). EPHAIOLA Raf. Sylva Tellur. 124. 1838, descr.=Acnistus Schott (1829).

EPHAIOLA (continued).

odorata Raf. I.c., nom., nota. (Atropa arborescens Linn.; Perderlea arborescens Raf.). West Indies=Acnistus arborescens (Linn.) Schlecht.

EPLATEIA Raf. Sylva Tellur. 57. 1838, descr.=Withania Paug. (1824), nom. conserv. (Physaloides Moench, 1794, non Boehm. 1760).

arborescens Raf. 1.c., nom. (Physalis arborescens Linn.). Mexico=Withania arborescens (Linn.) Dun

**EUCAPNIA** Raf. Fl. Tellur. 3:74. 1836 [1837], descr. = Nicotiana Linn.

repanda Raf. 1.c., descr (Nicotiana repanda Lehm.; Sims, Bot.

Mag. 51: t. 2484. 1824). Cuba.

EVOISTA Raf. Sylva Tellur. 56. 1838, descr.=Lycium Linn.
caroliniana Raf. 1.c., descr. (Lycium carolinianum sensu
Michx.). Florida.

spinosa Raf. I.c., descr. (Lycium tetrandrum Thunb.). South

EXODECONUS Raf. Sylva Tellur. 57. 1838, descr.=Physalis

prostratus Raf. 1.c., nom., nota (Physalis prostrata Domb. ex L'Hérit.). Peru.

\*GRABUSKIA Raf. Sylva Tellur. 158. 1838, nom., nota sub Pukanthus Raf. = Grabowskia Schlecht. (1832).

HUANUCA Raf. Sylva Tellur. 54. 1838, descr., non Cav. (1801)

=Acnistus Schott (1829). spathulata Raf. 1.c., descr. (Lycium spathulatum Ruiz & Pavon). Peru=Acnistus spathulatus (Ruiz & Pavon) G. Don.

KOKABUS Raf. Sylva Tellur. 55. 1838, descr. = Acnistus Schott

umbellatus Raf. 1.c., nom. [Atropa umbellata Ruiz & Pavon]. Peru=Acnistus umbellatus (Ruiz & Pavon) Miers.

KUKOLIS Raf. Sylva Tellur. 55. 1838, descr.=Hebecladus Miers (1845), nom. conserv. (Utikona Raf. 1838; Kukolis Raf., 1838).

bicolor Raf. l.c., nom. [Atropa bicolor Ruiz & Pavon]. Peru = Hebecladus bicolor (Ruiz & Pavon) Miers.

LANGSDORFIA Raf. Fl. Tellur. 3:74. 1836 [1837], descr., non Leandro (1817) = Nicotiana Linn.

\*tristis Raf. 1.c., descr. (Nicotiana tristis Comm.). Buenos Aires.

viridiflora Raf. l.c., descr. (Nicotiana langsdorffii Schrank; Sims Bot. Mag. 52: t. 2555. 1825). Brazil.

LEVANA Raf. Aut. Bot. 15. 1840, nom. alt. Vestia Willd.; Pennell, Bull. Torr. Bot. Club 48:92. 1921, nom., nota=
Vestia Willd. (1809).

uniflora Raf. I.c., nom. alt. Vestia lycioides Willd.; Pennell, I.c., nom., nota. Chile=Vestia lycioides Willd.

LOMERIA Raf. Sylva Tellur. 56. 1838, descr.=Cestrum Linn.

purpurea Raf. 1.c., nom. (Cestrum longiflorum Ruiz & Pavon). Perm.

#MINON Raf. Aut. Bot. 108. 1840, descr., subgen. Solanum Linn. (Type Solanum pseudocapsicum Linn.)

OPLUKION Raf. Sylva Tellur. 53. 1838, descr.=Lycium Linn. afrum Raf. 1.c., nom. (Lycium afrum Linn.). South Africa. horridum Raf. 1.c., nom. (Lycium horridum Thunb.). South Africa=Lycium tetrandrum Thunb.=L. capense Mill.

OPSAGO Raf. Sylva Tellur. 54. 1838, descr.=Withania Pauq. (1824) nom conserve (Physoloides Moench 1704 non

(1824), nom. conserv. (Physaloides Moench, 1794, non Boehm., 1760).

cordata Raf. op. cit. 55, descr. (Atropa frutescens Linn.). Spain, Sicily=Withania frutescens (Linn.) Pauq.

suberosa Raf. 1.c., descr. (Physalis suberosa Cav. Ic. 2:1. t. 102. 1793). Spain=Withania frutescens (Linn.). Paug.

\*ORINOCOA Raf. Sylva Tellur. 57. 1838, nom. alt. Deprea Raf. =Athenaea Sendtn. (1846), nom. conserv. (Deprea Raf., 1838).

\*OTILIX Raf. Med. Fl. 2:87. 1830, descr. (Type Solanum lycioides Linn.). Peru=Solanum Linn.

PARMENTIERA Raf. Aut. Bot. 108. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:94. 1921, non DC. 1838=Solanum

\*balduini Raf. op. cit. 109, descr. Uruguay. edulis Raf. op. cit. 108, descr. (Solanum tuberosum Linn.); Pennell, I.c., nom., nota. Peru.

PEDERLEA Raf. Sylva Tellur. 54. 1838, descr. = Acnistus Schott (1829).

agregata Raf. 1.c., descr. (Lycium aggregatum Ruiz & Pavon). Peru=Acnistus campanulatus (Lam.) Merr. Jour. Arnold Arb. 29:213. 1948 (A. aggregatus Miers).

arborescens Raf. 1.c., descr. (Atropa arborescens Linn.). Mexico=Acnistus arborescens (Linn.) Schlecht.

cestroides Raf. 1.c., nom. (Cestrum campanulatum Lam.).
South America=Acnistus aggregatus Miers=A. campanulatus (Lam.) Merr.

PERIETERIS Raf. Sylva Tellur. 3:74. 1836 [1838], nom. alt. Langsdorfia Raf. = Nicotiana Linn.

tristis Raf. 1.c., nom. alt. Langsdorfia tristis Raf. (Nicotiana tristis Sm.). Buenos Aires.

viridiflora Raf. 1.c., nom. alt. Langsdorfia viridiflora Raf. (Nicotiana langsdorffii Schrank; Sims, Bot. Mag. 52: t. 2555. 1825). Brazil.

PETAGNIA Raf. Specch. Sci. 1:157. 1814, descr.; Précis Découv. Somiol. 1814 (p. 4 of cover), nom.; Jour. Bot. (Desv.) 4:277 (err. 177). 1814, nom., non Guss. (1826)= Solanum Linn.

rosea Raf. Specch. Sci. 1:158. 1814, descr. Haiti.

PETUNIA Juss. \*longiflora Raf. Aut. Bot. 112. 1840, descr. Uruguay (Montevideo).

\*odorata Raf. 1.c., descr. Brazil.

PHYSALIS Linn.

\*daturifolia Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom. (daturefolia); Herb. Raf. 60. 1833, nom. Kentucky.

\*floridana Raf. Herb. Raf. 79. 1833, nom. Florida. \*heterophyla Raf. op. cit. 60, nom. Kentucky or Illinois. \*megaphyla Raf. op. cit. 67, nom. Cumberland Mountains. \*parviflora Raf. op. cit. 60, nom. Kentucky or Illinois.

\*petiolaris Raf. l.c., nom. Kentucky or Illinois. \*reticulata Raf. 1.c., nom. Kentucky or Illinois.

PLICULA Raf. Sylva Tellur. 55. 1838, descr. = Acnistus Schott (1829).

umbellata Raf. 1.c., nom. (Lycium umbellatum Ruiz & Pavon). Peru=Acnistus umbellatus (Ruiz & Pavon) Miers.

PUKANTHUS Raf. Sylva Tellur. 53. 1838, descr.; op. cit. 158, nom., nota=Grabowskia Schlecht. (1832).

odoratus Raf. 1.c., 53, descr. (Lycium boerhaviaefolium Linn.; L. heterophyllium Murr.; Ehretia halmifolia L'Hérit.). Peru=Grabowskia boerhaviaefolia (Linn.) Schlecht.

OUINCULA Raf. Atl. Jour. 1:145. 1832, descr. = Physalis Linn. lobata Raf. I.c., nom. (Physalis lobata Torr.). Rocky Mountains.

SCHIZANTHUS Ruiz & Pavon

\*versicolor Raf. Herb. Raf. 49. 1833, nom. Rocky Mountains or Oregon.

SCHUENKIA Raf. Princ. Somiol. 30. 1814, nom. = Schwenkia

SCUBULON Raf. Aut. Bot. 109. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:94. 1921, nom.=Lycopersicon Mill.

\*humboldti Raf. 1.c., descr. (? Solanum humboldtii Willd.). South America=Lycopersicon esculentum Mill. incanum Raf. l.c., descr.; Pennell, l.c., nom. Peru. SIPHAULAX Raf. Fl. Tellur. 3:74. 1836 [1837], descr.=Nico-

tiana Linn.

glabra Raf. 1.c., descr. (Nicotiana glauca Grah. ex Hook. Bot. Mag. 55: t. 2837. 1828). Buenos Aires.

\*SIPHONEMA Raf. Fl. Tellur. 3:75. 1836 [1837], descr.=
Nierembergia Ruiz & Pavon (1794).

\*filicaulis Raf. op. cit. 76, descr. (Nierembergia filicaulis Lindl. Bot. Reg. 19: t. 1649. 1834; Hook. Bot. Mag. 61: t. 3370. 1834). Argentina=Nierembergia linariaefolia Grah. \*longiflora Raf. 1.c., descr. (Nierembergia calycina Hook. Bot. Mag. 61: t. 3371. 1834). Argentina.

SOLANUM Linn.

\*bidentatum Raf. Aut. Bot. 108. 1840, descr. Italy, Sicily. \*carolinianum Raf. Western Rev. Miscel. Mag. 2:93. 1819, nom. Kentucky=S. carolinense Linn.?

\*chenopodium Raf. Aut. Bot. 107. 1840, descr. (Solanum nigrum Linn. "var. undatum"). Europe=Solanum nigrum Linn.

\*dimidiatum Raf. 1.c., descr. Arkansas, Texas, New Mexico. dulcamara Linn.; Raf. Med. Fl. 2:87. 1830. Europe and North America.

var. heterophylla Raf. 1.c., nom. isophylla Raf. l.c., descr. maritima Raf. l.c., descr. pandurata Raf. l.c., descr. repens Raf. 1.c., descr.

\*emulans Raf. Aut. Bot. 107. 1840, descr. (Solanum virginicum auct. Am.). New England to Kentucky=Solanum virginianum Linn.=S. carolinense Linn.

\*exaratum Raf. 1.c., descr. (Solanum nigrum Linn., "var.").

Europe=Solanum nigrum Linn.
\*floridanum Raf. l.c., descr. Florida.
\*ludovicianum Raf. Fl. Ludovic. 45. 1817, descr. (Morelle 1

Rob. Voy. Louis. 3:398. 1807). Louisiana. \*obliquatum Raf. Aut. Bot. 106. 1840, descr. Florida. \*pilosum Raf. op. cit. 108, descr. (? Solanum decurrens Balb.). South America.

STIMENES Raf. Fl. Tellur. 3:76. 1836 [1837], descr.=Nierem-

bergia Ruiz & Pavon (1794).
gracilis Raf. 1.c., descr (Nierembergia gracilis Hook. Bot. Mag. 58: t. 3108. 1831). Uruguay.

STIMOMPHIS Raf. Fl. Tellur. 3:76. 1836 [1837], descr.=
Salpiglossis Ruiz & Pavon (1794).

linearis Raf. 1.c., descr. (Salpiglossis linearis Hook. Bot. Mag. 60: t. 3256. 1833; Nierembergia intermedia Grah.). Buenos Aires = Salpiglossis linearis Hook.

STIMORYNE Raf. Fl. Tellur. 3:76. 1836 [1837], descr.=

Petunia Juss. (1803). purpurea Raf. 1.c., descr. (Nierembergia phoenicea G. Don; Salpiglossis integrifolia Hook. Bot. Mag. 58: t. 3113. 1831).

Uruguay = Petunia violacea Lindl.

TEREMIS Raf. Sylva Tellur. 53. 1838, descr. = Lycium Linn.
elliptica Raf. op. cit. 54, descr. (Lycium barbarum Linn.).

North Africa.

turbinata Raf. 1.c., descr. (Lycium turbinatum Loisel.; L. halmifolium Mill.). China=Lycium chinense Mill.

TRILIENA Raf. Sylva Tellur. 54. 1838, nom. alt. Pederlea Raf. (1838)=Acnistus Schott (1829).

TROZELIA Raf. Sylva Tellur. 54. 1838, descr. = Acnistus Schott

(1829).nbellata Raf. 1.c., descr. (Lycium umbellatum Ruiz & Payon Fl. Peruv. 2:45. t. 182. 1799). Peru=Acnistus

umbellatus (Ruiz & Pav.) Miers.

ULTICONA Raf. Sylva Tellur. 55. 1838, descr.=Hebecladus
Miers (1845), nom. conserv. (Kukolis Raf., 1838; Ulticona Raf., 1838).

aspera Raf. 1.c., nom. (Atropa aspera Ruiz & Pavon). South America=Hebecladus asperus (Ruiz & Pavon) Miers. biflora Raf. I.c., nom. (Atropa biflora Ruiz & Pavon). South America=Hebecladus biflorus (Ruiz & Pavon) Miers.

viridiflora Raf. I.c., nom. (Atropa viridiflora H.B.K.) South America=Hebecladus viridiflorus (H.B.K.) Miers. VALTETA Raf. Sylva Tellur. 53. 1838, descr.=Iochroma Benth. (1845), nom. conserv. (Diplukion Raf., 1838; Val-

teta Raf., 1838).

fuchioides Raf. 1.c., nom. (Lycium fuchsioides Humb. & Bonpl.). Peru=Iochroma fuchsioides (Humb. & Bonpl.) Miers.

gesneroides Raf. 1.c., nom. (Lycium gesnerioides H.B.K.).

Peru=Iochroma gesnerioides (H.B.K.) Miers.

WADEA Raf. Sylva Tellur. 56. 1838, descr.=Cestrum Linn. latifolia Raf. I.c., nom. (Cestrum latifolium Lam.). Trinidad.

#### SCROPHULARIACEAE 35

**AGALINIS** Raf. New Fl. N. Am. 2:61. 1836 [1837], descr.;

GALINIS Rai. New Fi. N. Alli. 2.01. 1000 [100.1],
Good Book 45. 1840, nom.
aphylla Raf. op. cit. 65, descr. (Gerardia aphylla Nutt.).
Carolina to Florida = Gerardia aphylla Nutt.

corymbosa Raf. op. cit. 63, descr. Carolina, Florida=? A. purpurea (Linn.) Pennell.

fasciculata Raf. 1.c., descr. (Gerardia fasciculata Ell.). Sea Islands of Carolina = Gerardia fasciculata Ell.

filifolia Raf. op. cit. 65, descr. (Gerardia filifolia Nutt.). Florida=Gerardia filifolia Nutt.

\*glauca Raf. I.c., nom. sub A. microphylla Raf. Hab.? longifolia Raf. op. cit. 62, descr. New Jersey to Virginia

A. purpurea (Linn.) Pennell.

maritima Raf. I.c., descr. (sphalm. "Agalims") (Gerardia maritima Raf.; Gerardia purpurea Linn. var. crassifolia Pursh). New England to Chesapeake Bay=Gerardia maritima Raf.

var. gracilis Raf. 1.c., descr.

pumila Raf. 1.c., nom. microphylla Raf. op. cit. 65, descr. Florida=Gerardia aphylla Nutt.

obtusifolia Raf. op. cit. 64, descr., non Benth. Western Tennessee, Alabama, Florida = Gerardia obtusifolia (Raf.) Pen-

palustris Raf. op. cit. 62, descr. (Gerardia purpurea Linn.). New England to Carolina = Agalinis purpurea (Linn.) Pen-

var. corymbosa Raf. 1.c., descr. divaricata Raf. 1.c., descr. ramosissima Raf. l.c., nom. virgata Raf. l.c., nom.

perennis Raf. op. cit. 63, descr. (Gerardia linifolia Nutt.). Carolina to Florida = Agalinis linifolia (Nutt.) Britton.

plukeneti Raf. l.c., descr. (Gerardia plukenetii Ell.) Carolina=Gerardia plukenetii Ell.

setacea Raf. op. cit. 64, descr. (Gerardia setacea Walt.). New Jersey to Alabama, Kentucky and Illinois=Gerardia setacea Walt.

var. humilis Raf. 1.c., descr. major Raf. l.c., descr.

tenuifolia Raf. I.c., descr. (Gerardia tenuifolia Vahl). Canada to Florida and Missouri=Gerardia tenuifolia Vahl.

var. humilis Raf. 1.c., descr. paniculata Raf. 1.c., nom. ramosissima Raf. 1.c., descr. saxatilis Raf. l.c., descr.

virgata Raf. op. cit. 62, descr., non Gerardia virgata H.B.K. Southern New Jersey=G. racemulosa Pennell

ALLOPLEIA Raf. Med. Fl. 2:109. 1830, descr.; Fl. Tellur. 4:

56. 1836 [1838], descr. = Sibthorpia Linn.
†rotundifolia Raf. Fl. Tellur. 1.c., descr. (Veronica rotundifolia Ruiz & Pavon). Peru = Sibthorpia sp.

#ALPONICA Raf. Fl. Tellur. 4:55. 1836 [1838], descr., subgen. Veronica Linn. (Type Veronica alpina Linn.).

AMBULIA Lam. (1783) = Limnophila R. Br. (1810), nom. con-

alata Raf. Fl. Tellur. 4:58. 1836 [1838], descr. (Gratiola tetragona Hook. Bot. Mag. 59: t. 3134. 1832). Buenos Aires = Stemodia lobelioides Lehm.

\*micrantha Raf. Aut. Bot. 44. 1840, descr. (Gratiola micrantha Telluria — Scopping dulcie I inn.

Nutt.). Florida=Scoparia dulcis Linn.
\*psilosa Raf. 1.c., descr. (Gratiola tetragona Ell.). South Carolina or Georgia=Ilysanthes dubia Barnhart=Lindernia

dubia (Linn.) Pennell var. major (Pursh) Pennell.
rigida Raf. Fl. Tellur. 4:58. 1836 [1838], descr. (Gratiola rigida Raf.; G. acuminata Walt.); Aut. Bot. 43. 1840, nom., nota (Gratiola anagallidea Michx.). Kentucky to Carolina and Texas=Pagesia acuminata (Walt.) Pennell (Mecardonia acuminata Small).

var. angustifolia Raf. Aut. Bot. 44. 1840, descr. Florida. cuneata Raf. I.c., descr. Carolina, Alabama. microphyla Raf. op. cit. 43, descr. Florida. obovata Raf. I.c., descr. Unaka Mountains, North

Carolina.

ANTIRRHINUM Linn. (Anthirinum Raf. sphalm.).

canadense Linn.=Linaria canadensis (Linn.) Dum. var. assurgens Raf. Aut. Bot. 155. 1840, descr. New Jersey, Virginia.
gracile Raf. 1.c., nom.
ramosum Raf. 1.c., nom.

simplex Raf. 1.c., nom. surculosum Raf. 1.c., nom.

\*crassifolium Raf. Herb. Raf. 69. 1833, nom. Long Island, New Jersey, Chesapeake Bay.

\*junceum Raf. Aut. Bot. 155. 1840, nom. nov. provis. A. parviflorum Jacq. Southern Europe. linaria Linn. Europe, North America=Linaria vulgaris Mill.

var. latifolia Raf. op. cit. 156, nom. ramosa Raf. l.c., nom.

simplex Raf. 1.c., nom. \*micranthes Raf. op. cit. 159, nom. sub Antrizon Raf. (An Antirrhinum micranthum Cav. ?).

ANTRIZON Raf. Aut. Bot. 155, nom., 159, descr. 1840; Pennell, Bull. Torr. Bot. Club 48:95. 1921, nom. =? Antirrhinum

tenuifolium Raf. l.c., descr.; Pennell, l.c., nom. Siberia. #AOTALIX Raf. Aut. Bot. 43. 1840, descr., subgen. Ambulia Lam. (Type Ambulia rigida Raf.) = seq.

<sup>&</sup>lt;sup>85</sup> For reduction of various Rafinesque genera and species native of eastern North America see Pennell The Scrophulariaceae of Eastern Temperate North America. Acad. Nat. Sci. Philadelphia Monog. 1: i-xiv. 1-650, illus., 1935.

#AOTILIX Raf. Atl. Jour. 1:176. 1833, nom., subgen. Gratiola Linn. (Type Gratiola rigida Raf.); Herb. Raf. 21. 1833, nom., subgen. Gratiola Linn.; Fl. Tellur. 4:58. 1836 [1838],

nom., stugen. Granota Linn., Ft. Tenur. 4.38. 1836 [1837], nom. = Pagesia Raf. (1817).

APENTOSTERA Raf. New Fl. N. Am. 2:72. 1836 [1837], descr.; Good Book 45. 1840, nom. = Penstemon Schmidel, 1762 (Pentstemon Ait., 1789; Pentastemon L'Hérit. 1791). secundiflora Raf. New Fl. l.c., descr. (Pentstemon scouleri Lindl. Bot. Reg. 15: t. 1277. 1829). Oregon = Penstemon seculeri Lindl.

scouleri Lindl.

triflora Raf. op. cit. 73, descr. (Chelone nemorosa Dougl.; Lindl. Bot. Reg. 14: t. 1211. 1829). Oregon=Penstemon nemorosus (Dougl.) Trautv.

PONOA Raf. Sylva Tellur. 84. 1838, descr.=Limnophila

APONOA Raf. R. Br. (1810), nom. conserv. (Ambulia Lam., 1783; Diceros

Lour., 1790; Hydropityon Gaertn. f. 1805).

repens Raf. 1.c., descr. (Columnea stellata Lour.). IndoChina (Annam) = ? Limnophila chinensis (Osb.) Merr.;
see Merrill, Trans. Am. Philos. Soc. II. 24(2):350. 1935.

AUREOLARIA Raf. New Fl. N. Am. 2:58. 1836 [1837], descr.;
Good Book 45. 1840. nom.; see Pennell, Acad. Nat. Sci.
Philadelphia Monog. 1:382. 1935.
cuneifolia Raf. op. cit. 59. descr. Alleghany Mountains =
Aureolaria flava (Linn.) Farwell.

glauca Raf. op. cit. 60, descr. (Gerardia glauca Muhl.; G. quercifolia Pursh; G. flava sensu Walt.; Rhinanthus virginicus Linn.). Long Island to Carolina and Kentucky=Aureolaria flava (L.) Farwell.

var. gigantea Raf. 1.c., descr. Kentucky. purpurea Raf. 1.c., nom. subnud.

levigata Raf. op. cit. 59, descr. (Gerardia levigata Raf.; G. lanceolata Muhl.?). Alleghany and Cumberland Mountains, Pennsylvania to Kentucky=Aureolaria laevigata (Raf.) Raf.

var. alternifolia Raf. 1.c., nom., nota.

ramosa Raf. l.c., nom. \*pallida Raf. op. cit. 70, nom. in obs. sub Ovostima petiolata Raf. Florida=A. flava (Linn.) Farwell, var. macrantha

\*pedicularis Raf. op. cit. 61, nom. alt. Panctenis pedicularis Raf. (Gerardia pedicularia Linn.). Eastern North Amer-

ica=A. pedicularia (Linn.) Raf. [pedicularis].
var. pumila Raf. l.c., nom.
ramosissima Raf. l.c., nom.

simplex Raf. l.c., nom. reticulata Raf. op. cit. 59, descr. Alabama, Florida=A. flava (Linn.) Farwell, var. reticulata (Raf.) Pennell.

rupestris Raf. op. cit. 60, descr. (Gerardia rupestris Raf.). Alleghany Mountains=A. flava (Linn.) Farwell. villosa Raf. op. cit. 59, descr. (Gerardia villosa Muhl.; G. flava Linn.). Eastern North America=A. virginica (Linn.) Pennell.

var. heterophylla Muhl. Cat. 58. 1813, nom. Raf. 1.c.,

descr. montana Raf. 1.c., nom. sinuata Raf. 1.c., nom. virgata Raf. 1.c., nom.

BARTSIA Linn.

\*longiflora Raf. Herb. Raf. 39. 1833, nom. Upper Missouri (Mandan Country) = Dakota.

BAZINA Raf. Aut. Bot. 44. 1840, descr.; Pennell, Bull. Tor. Bot. Club 48:93. 1921, nom.=Lindernia All. (1756), sect. Bazina (Raf.) Pennell.

nudiflora Raf. op. cit. 45, descr. (Lindernia grandiflora Nutt.); Pennell, l.c., nom. Florida=Ilysanthes grandiflora Benth.= Lindernia grandiflora (Nutt.) Pennell.

BUCHNERA Linn.

angustifolia Raf. New Fl. N. Am. 2:32. 1836 [1837], descr., non Don, 1835. Alabama = Buchnera floridana Gandoger (1919)

levicaulis Raf. op. cit. 39, descr. Florida. An Verbenaceae? †missurica Raf. Herb. Raf. 60. 1833, nom.; New Fl. N. Am. 2:32. 1836 [1837], descr. Missouri, Illinois=B. americana Linn.

\*CALISTACHIA Raf. Fl. Tellur. 4:56. 1836 [1838], nom.=

CALISTACHYA Raf. Med. Repos. II. 5:352. 1808, nom.; Jour. Bot. (Paris) 2:169. 1809, nom.; Fl. Tellur. 1:16. 1836 [1837], nom.; op. cit. 4:54. 1836 [1838], nom. (Leptandra Nutt.)=Veronicastrum Fabr. 1759; see also Callistachya Raf.

 alba Raf. Med. Repos. et Jour. Bot. (Paris) 11.cc., nom.
 (Veronica virginica Linn.); A. Gray, Am. Jour. Sci. 40:
 227. 1841, nom. Eastern North America=Veronicastrum virginicum (Linn.) Farwell.

†CALLISTACHYA Raf. Am. Monthly Mag. Crit. Rev. 2:175.
1818, nom., nota (Veronica virginica Linn.); op. cit. 4:190.
1819, nom., nota (Leptandra Nutt.; Eustachya Raf.); Jour.
Phys. Chim. Hist. Nat. 98:258. 1819, nom., nota (Veronica virginica Linn.; Leptandra Nutt.; Eustachya Raf.); Ann. Gén. Sci. Phys. 6:97. 1820, nom.; Med. Fl. 2:20. 1830, nom., non Callistachya Sm. (1808) = Veronicastrum Fabr., 1759.

sibirica Raf. ex Jacks\*. Ind. Kew. 1:388. 1893 (Veronica sibirica Linn.). Siberia=Veronicastrum sp.

virginica Raf. ex Jacks\*. l.c. (Veronica virginica Linn.). Eastern North America=Veronicastrum virginicum (Linn.) Farwell.

\*CARPANTHE Raf. Med. Repos. II. 3:422. 1806, nom.; Merr. Am. Fern Jour. 33:46. 1943, nom.=seq.

\*axillaris Raf. l.c., nom.; Merr. l.c., nom. Pennsylvania, New Jersey=Carpanthus axillaris Raf.=? Gratiola virginiana Linn. var. aestuariorum Pennell.

\*CARPANTHUS 36 Raf. Med. Repos. II. 5:357. 1808, descr.; Jour. Bot. (Paris) 1:221. 1809, descr.; Merr. Am. Fern Jour. 33:46. 1943, nom., nota=? Gratiola Linn.

\*axillaris Raf. Il.cc., descr.; iter. Merr. l.c., nota; Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom. New Jersey, Pennsylvania = ? Gratiola virginiana Linn. var. aestuariorum Pennell.

\*CHELONANTHUS Raf. Med. Fl. 2:118. 1830, nom. nov. Chelone Linn.; Casket 1831:513. 1831, nom.; Sat. Eve. Post 10(536):[4]. 1831, nom.=Chelone Linn.

CHELONE Linn.

capitata Raf.<sup>37</sup> Med. Fl. 2:118. 1830, descr. Central Western United States=Chelone glabra Linn. var. elatior Raf.

elatior Raf. l.c., descr. Eastern United States=Chelone glabra Linn. var. elatior Raf.

†lanceolata Raí. First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom.; Med. Fl. 2:117. 1830, descr. [C. glabra Linn. var. lanceolata Nutt. Gen. 2:51. 1818]. Kentucky=C. glabra Linn.

maculata Raf. Med. Fl. 1.c., descr. Eastern United States= C. glabra Linn.

purpurea Raf. op. cit. 118, descr. Eastern United States= C. glabra Linn.

\*tomentosa Raf. New Fl. N. Am. 2:20. 1836 [1837], nom. alt. Chlonanthes tomentosa Raf. Virginia=Chelone glabra Linn.

CHLONANTHES Raf. New Fl. N. Am. 2:20. 1836 [1837], nom. nov. Chelone Linn.; Aut. Bot. 19. 1840, nom. (Chelone Linn.).

\*glabra Raf. Aut. Bot. 19. 1840, descr. (Chelone glabra Linn.).

North America = Chelone glabra Linn. \*latifolia Raf. l.c., nom. (†Chelone latifolia Muhl. Cat. 58. 1813). Kentucky=Chelone lyoni Pursh.

\*montana Raf. 1.c., descr. Wasioto or Cumberland Mountains=Chelone montana (Raf.) Pennell & Wherry=C. glabra Linn. var. elatior Raf.

tomentosa Raf. New Fl. N. Am. 2:20. 1836 [1837], descr.;
Aut. Bot. 19. 1840, nom. Virginia=Chelone glabra Linn.
CHLONANTHUS Raf. Princ. Somiol. 26. 1814, nom. nov.
Chelone Linn.; Fl. Tellur. 1:84. 1836 [1837], nom. (Chelone Linn.); New Fl. N. Am. 2:72. 1836 [1837], nom. (Chelone

36 Dr. Pennell in lit. thinks that Carpanthe (Carpanthus) is not a scrophulariaceous plant and suggests Myriophyllum Linn. of the Halorhagidaceae.

<sup>37</sup> The first five of the following binomials are thus published by Rafinesque, Med. Fl. 2:117. 1830: "The following are the varieties [of Chelone glabra Linn.], which might, perhaps, be deemed as many species." Dr. Pennell considers that Rafinesque proposed them as varieties of *Chelone glabra* Linn., but Rafinesque definitely published them as binomials, and they must be accounted for as such. All are entered in *Index Kewensis*. The entire list is C. alba [Moench], C. maculata Raf., C. lanceolata Raf., C. obliqua [Linn.], C. purpurea Raf., C. elatior Raf., and C. capitata Raf.

\*montanus Raf. Herb. Raf. 67. 1893, nom. Cumberland Mountains=Chelone montana (Raf.) Pennell & Wherry= C. glabra Linn. var. elatior Raf.

\*tomentosus Raf. Herb. Raf. 66. 1833, nom.=Chelone glabra Linn.)

COLLINIA Raf. Am. Monthly Mag. Crit. Rev. 4:194. 1819,

nom., sphalm.=Collinsia Nutt.

COLLINIANA Raf. Am. Monthly Mag. Crit. Rev. 4:194. 1819, nom. nov. Collinsia Nutt. = seq.

COLLINSIA Nutt.

alba Raf. Cincinnati Lit. Gaz. 1:85. 1824, descr. Virginia=

verna Nutt.

bicolor Raf. Cincinnati Lit. Gaz. 1:84. 1824, descr. pestis bicolor Mill. & Muhl. ex Raf. 1c., in syn.; Collinsia verna Nutt.); Herb. Raf. 39, 60. 1833, nom.; Atl. Jour. 1:149. 1833, nom. (C. verna Nutt.), non Benth. (1831-35). Pennsylvania to Illinois and Arkansas=C. verna Nutt.

var. angustifolia Raf. Cincinnati Lit. Gaz. 1.c., descr. cordata Raf. 1.c., descr.

integrifolia Raf. 1.c., descr. latifolia Raf. 1.c., descr. rotundifolia Raf. 1.c., descr. verticillata Raf. 1.c., descr.

 purpurea Raf. op. cit. 85. descr.; First Cat. Bot. Gard.
 Transylv. Univ. 13, 1824, nom.; Atl. Jour. 1:18. 1832,
 nom.; op. cit. 149, descr.; Herb. Raf. 60. 1833, nom. Indiana, Kentucky, Illinois and Missouri ? C. verna Nutt. var. cuneata Raf. Cincinnati Lit. Gaz. l.c., descr.

parviflora Raf. 1.c., descr. tricolor Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824,

nom. nov. Collinsia verna Nutt. Kentucky. \*COLLINSIANA Raf. Am. Monthly Mag. Crit. Rev. 3:271, 273. 1818, nom. nov. provis. Collinsia Nutt.; op. cit. 4:208. 1819, nom. = Collinsia Nutt.

CYMBALARIA Medic.=Linaria Mill. (1752).

\*alpina Raf. Aut. Bot. 19. 1840, nom. (Linaria alpina Mill.). Europe=Linaria alpina (Linn.) Mill.

\*egyptiaca Raf. op. cit. 20, nom. (Linaria aegyptiaca Dum. Cours.). Egypt=Kickxia aegyptiaca (Linn.) Nábélek. \*triphyla Raf. l.c., nom. (Linaria triphylla Mill.). Mediterranean region=Linaria triphylla (Linn.) Mill.

\*vulgaris Raf. 1.c., nom. (Linaria cymbalaria Mill.). Europe=

Cymbalaria muralis Gaertn. Mey. & Scherb.

\*CYMBALINA Raf. Aut. Bot. 156. 1840, nom. nov. provis.

Cymbalaria Medic., sub Tursitis Raf.=Cymbalaria Medic.

\*rupestris Raf. 1.c., nom. (Tursitis cymbalaria Raf.; Antirrhinum cymbalaria Linn.). Europe=Linaria cymbalaria Mill.=Cymbalaria muralis Gaertn. Mey. & Scherb.

†DASANTHERA Raf. Fl. Ludovic. 49. 1817, nom. sub Pagesia Raf. (Gerardia fruticosa Pursh); Am. Monthly Mag. Crit. Rev. 2:267. 1818, nom. (Gerardia fruticosa Pursh); Jour. Phys. Chim. Hist. Nat. 89:99. 1819, descr.: Isis von Oken 1820, 1: Lit. Anz. 239. 1820, descr.: New Fl. N. Am. 2:68. 1836. [1837], descr.=Penstemon Schmidel (1762) (Pento-

stemon L'Hérit, 1791; Pentstemon Ait., 1789).

cuneifolia Raf. New Fl. N. Am. 2:69. 1836 [1837], descr.

Florida=Pagesia acuminata (Walt.) Pennell.

fructicosa Raf. l.c., descr. (Gerardia fructicosa Pursh). Rocky Mountains or Oregon=Penstemon fructicosus (Pursh)

DASISTEMA Raf. New Fl. N. Am. 2:66, 1836 [1837], descr.; Good Book 45, 1840, nom.=Dasistoma Raf. (1819).

\*auriculatum Raf. op. cit. 67, descr. Western Kentucky, Illinois=Dasistoma macrophylla (Nutt.) Raf.

\*macrophyllum Raf. 1.c., descr. (Seymeria macrophylla Nutt.).
Ohio=Dasistoma macrophylla (Nutt.) Raf. \*DASISTEMON Raf. First Cat. Bot. Gard. Transylv. Univ. 13.

1824, nom. Prob. = Aureolaria Raf. (1837). \*villosum Raf. 1.c., nom. Kentucky. Prob.=Aureolaria vir-

ginica (Linn.) Pennell.

 DASISTOMA Raf. Jour. Phys. Chim. Hist. Nat. 89:99. 1819,
 descr.; Isis von Oken 1820, 1: Lit. Anz. 238. 1820, descr.
 (Brachygyne (Benth.) Small, 1903, non Cass., 1827; Seymeria Pursh, sect. Brachygyne Benth., 1846).

aurea Raf. Il.cc., descr. Kentucky=D. macrophylla (Nutt.)

auriculata Raf. ex Jacks\*. Ind. Kew. 1:719. 1893 (Dasistema auriculata Raf.). Western Kentucky, Illinois=D. macrophylla (Nutt.) Raf.

laevigata Raf. ex Chapm. Fl. S. U. S. Suppl. 636. 1883, descr. Georgia=Aureolaria laevigata (Raf.) Raf.

macrophylla Raf. ex Jacks\*. Ind. Kew. 1:719. 1893 (Dasistema macrophylla Raf.). Ohio=Dasistoma macrophylla (Nutt.) Raf.

DASYSTOMA Raf. ex Endl. Gen. 691. 1839, nom. in syn.= praec.

DERWENTIA Raf. Fl. Tellur. 4:55. 1836 [1838], descr.= Veronica Linn.

perfoliata Raf. 1.c., descr. (Veronica perfoliata R. Br.; Sims. Bot. Mag. 44: t. 1936. 1817). Australia.

suaveolens Raf. 1.c., descr. (Veronica derwentia Andr. Bot. Rep. 8: t. 531. 1808; V. labiata R. Br.; Hook. Bot. Mag. 63: t. 3461. 1836). Australia=Veronica derwentia Andr.

DITOXIA Raf. Précis Découv. Somiol. 39. 1814, descr.; Jour. Bot. (Desv.) 4:270. 1814, nom., nota=Celsia Linn.

betonicifolia Raf. op. cit. 40, descr.; Jour. Bot. l.c. nom. (Celsia betonicifolia Desf.). North Africa.

cretica Raf. ex Jacks\*. Ind. Kew. 1:783. 1893 (Celsia cretica Linn. f.). Crete.

lyrata Raf. Précis Découv. Somiol. 40. 1814, descr., Jour. Bot. 1.c., nom. (Celsia cretica Linn. f.) Sicily, Crete, North Africa=Celsia cretica Linn. f.

\*DITULIUM Raf. Aut. Bot. 155. 1840, descr. sub Antirrhinum Linn.=Diascia Link & Otto (1820).

\*pinnatum Raf. 1.c., nom. (Antirrhinum unilabiatum Linn, f.). South Africa=Diascia unilabiata (Linn. f.) Benth.

#DODECULA Raf. Fl. Tellur. 4:55. 1836 [1838], descr. subgen. Veronica Linn. (Type Veronica glauca Sibth. & Sm.) = Veronica Linn.

#ENDASIA Raf. Med. Fl. 2:110. 1830, descr., subgen. Veronica Linn.; Fl. Tellur. 4:55. 1836 [1838], descr., subgen. Veronica Linn.=Veronica Linn.

\*ENDOPOGON Raf. Am. Monthly Mag. Crit. Rev. 3:101. 1818, nom., nota (Type Gratiola acuminata Walt.), non Raf. 1837. Southeastern United States=Pagesia Raf. (1817).

\*EPLIDIUM Raf. Aut. Bot. 9. 1840, nom. nov. Peplidium Delile.

\*humifusum Raf. l.c., nom. (Peplidium humifusum Delile). Egypt.

\*ETORNOTUS Raf. Aut. Bot. 155. 1840, descr., sub Antirrhinum

Linn. = Schweinfurthia A. Braun (1866).
\*persicus Raf. 1.c., nom. (Antirrhinum papilionaceum Linn.).
Persia = Schweinfurthia papilionacea (Linn.) Boiss.

EUSTACHIA Raf. First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom. = Veronicastrum Heist. (1759).

\*alba Raf. I.c., nom. (Veronica virginica Linn.). Eastern North America=Veronicastrum virginicum (Linn.) Far-

\*purpurea Raf. 1.c., nom.=Eustachya purpurea Raf.=Veronica purpurea Steud. Eastern North America=praec.

EUSTACHYA Raf. Am. Monthly Mag. Crit. Rev. 4:190. 1819, nom. nov. Callistachya Raf.; op. cit. 207, nom.; Jour. Phys. Chim. Hist. Nat. 89:258. 1819, nom. (Callistachya Raf.); Ann. Gén. Sci. Phys. 6:97. 1820, nom., nota (Leptandra Nutt.); Med. Fl. 2:20. 1830, nom.=Veronicastrum Fabr. (1759).

alba Raf. Ann. Gén. Sci. Phys. 6:97. 1820, descr. (Veronica virginica Linn.). Eastern United States=Veronicastrum virginicum (Linn.) Farwell.

\*cerulea Raf. l.c., descr. (Veronica sibirica Linn.). Siberia= Veronica virginica Linn. var. sibirica (Linn.) Nakai= Veronicastrum sp.

coerulea Raf. ex DC. Prodr. 10:464, 1846, nom, in syn.=

 †japonica Raf. Ann. Gén. Sci. Phys. l.c., nom., nota (Veronica virginica sensu Thunb., non Linn.); Steud. Nomencl. ed. 2, 1:618. 1840. Japan=Veronica virginica Linn. var. japonica Nakai, Bot. Mag. Tokyo 26:170. 1912=Veronicastrum sp.

oppositifolia Raf. New Fl. N. Am. 2:21. 1836 [1837], descr. Appalachian Mountains of Virginia. An Scrophulariaceae? purpurea Raf. Am. Monthly Mag. Crit. Rev. 4:190. 1819, nom.; Ann. Gén. Sci. Phys. 6:98. 1820, descr. Virginia, Kentucky, Tennessee=Veronica purpurea Steud.=V. virginica Linn.=Veronicastrum virginicum (Linn.) Farwell.

EUSTAXIA Raf. Fl. Tellur. 4:56. 1836 [1838], descr., nom. nov. Calistachia Raf. [Callistachya], non Vent.; Leptandra Nutt.)=Veronicastrum Fabr. (1759).

alba Raf. 1.c., nom. Eastern United States=Eustachya alba Raf.=Veronica virginica Linn.=Veronicastrum virginicum (Linn.) Farwell.

**EUSTAXIA** (continued).

japonica Raf. 1.c., nom. [Veronica virginica sensu Thunb.]. Japan=Veronica virginica Linn. var. japonica Nakai= Veronicastrum sp.

oppositifolia Raf. 1.c., nom.=Eustachya oppositifolia Raf.

Eastern United States. An Scrophulariaceae?

purpurea Raf. l. c., nom. Eastern United States = Eustachya
purpurea Raf. = Veronica purpurea Steud. = Veronica virpurpurea Rai. — veronica purpurea Steud. — veronica Virginica Linn. — Veronicastrum virginicum (Linn.) Farwell. sibirica Raf. l.c., nom. [Veronica sibirica Linn.]. Siberia — Veronica sibirica Linn. — Veronicastrum sp.

villosa Raf. 1.c., nom. [Leptandra villosa Raf.]. North Caro-

lina=Veronicastrum virginicum (Linn.) Farwell.

#FIMBRULA Raf. Fl. Tellur. 4:54. 1836 [1838], descr., subgen. Veronica Linn., type V. agrestis Linn.
FLAMARIA Raf. New Fl. N. Am. 2:71. 1836 [1837], nom. provis. = Macranthera Torr. (1835).

coccinea Raf. 1.c., nom. alt. Russelia flammea Raf. (Gerardia \*flammea Bartr. Trav. 412. 1791, descr.=Macranthera flammea (Bartr.) Pennell (M. lecontei Torr.).

FLOMOSIA Raf. Fl. Tellur. 4:89. 1836 [1838], descr. ("probably a genus"); Aut. Bot. 111. 1840, nom., subgen. Verbascum Linn. = Verbascum Linn.

condensata Raf. Fl. Tellur. I.c., nom. (Verbascum condensatum

Schrad.). Europe, Asia Minor.

nemorosa Raf. 1.c., nom. (Verbascum nemorosum Schrad.). Europe, Asia Minor.

phlomoides Raf. 1.c., nom. (Verbascum phlomoides Linn.). Europe, Asia Minor.

GERARDIA Linn.

\*flammea Bartram <sup>38</sup> Trav. 412. 1791, descr.; Raf. New Fl. N. Am. 2:65, 71. 1836 [1837], nom., nota, sub Agalinis aphylla Raf. Near Mobile, Alabama = Macranthera flammea (Bartr.) Pennell (M. lecontei Torr.; Flamaria coccinea Raf.; Russelia flammea Raf.).

\*glabrata Raf. Western Rev. Miscel. Mag. 1:94. 1819, nom.

Kentucky.

laevigata Raf. ex Jacks\*. Ind. Kew. 1:1022. 1893=G. levigata Raf. Alleghany Mountains and Kentucky=Aureolaria levigata (Raf.) Raf.

\*lanceolata Muhl. ex Raf. New F1. N. Am. 2:59. 1836 [1837], nom. in syn. sub Aureolaria levigata Raf. est G. \*lancifolia

Muhl. Cat. 58. 1813. Carolina.

leucanthera Raf. Fl. Ludovic. 50. 1817, descr. (Bignone cocarde Rob. Voy. Louis. 3:409. 1807); New Fl. N. Am. 2:65. 1836 [1837], nom., nota sub Agalinis aphylla Raf. Louisiana = Gerardia tenuifolia Vahl var. leucanthera (Raf.) Pennell.

\*levigata Raf. Ann. Nat. Ann. Synop. 13. 1820, descr.; First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom. Alleghany Mountains and Kentucky=Aureolaria levigata (Raf.) Raf.

Mountains and Kentucky = Aureolaria levigata (Rat.) Rat.
maritima Raf. Med. Repos. II. 5:361. 1808, descr.; Jour.
Bot. (Paris) 1:229. 1809, descr.; Am. Monthly Mag. Crit.
Rev. 2:174. 1818, nom., nota; op. cit. 4:194. 1819, nom.,
nota; Life of Travels 15. 1835, nom.; Gerard, Bull. Torr.
Bot. Club 12: 37. 1885, nom. New Jersey (Egg Harbor).
Massachusetts to Virginia, a variety southward to Texas.

\*pedicularis Raf. New Fl. N. Am. 2:61. 1836 [1837], nom.

sub Panctenis Raf. =G. pedicularia Linn. North America = Aureolaria pedicularia (Linn.) Raf.
rupestris Raf. Atl. Jour. 1:154. 1832, descr. Alleghany and Tuscarora Mountains = Aureolaria flava (Linn.) Farwell.

GRATIOLA Linn.

brevifolia Raf. Atl. Jour. 1:176. 1833, descr.; Herb. Raf. 21. 1833, descr. Texas (Georgia to Tennessee, Florida, Louisiana, and Texas). (G. drummondii Benth.).

callosa Raf. Aut. Bot. 42. 1840, descr. Florida=G. ramosa

Walt.

cataracta Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818,

nom. Alleghany Mountains or Ohio. heterophyla Raf. Aut. Bot. 43. 1840, descr. New Jersey

to Florida=G. neglecta Torr.

lutea Raf. Med. Repos. III. 2:333. 1811, nom. nov. G. officina-lis sensu Michx.; Am. Monthly Mag. Crit. Rev. 2:175. 1818, nom. (G. officinalis sensu Michx.) [G. aurea Pursh, Fl. Am. Sept. 1:12. 1814]. Newfoundland to Wisconsin and North Dakota southward to Florida.

38 See Pennell, F. P. Acad. Nat. Sci. Philadelphia Monog. 1:414. 1935; Merr. Bartonia 23:25-26. 1945.

\*obovata Raf. Herb. Raf. 69. 1833, nom. Long Island, New Jersey, Chesapeake Bay.

odorata Raf. Aut. Bot. 43. 1840, nom. nov. G. virginica Linn. (non G. virginiana Linn.). North America=G. neglecta Torr.

\*palustris Raf. Herb. Raf. 69. 1833, nom. Long Island, New Jersey, Chesapeake Bay

rigida Rat. Atl. Jour. 1:176. 1833, descr.; Herb. Raf. 21. 1833, descr. Texas=Pagesia acuminata (Walt.) Pennell. riparia Raf. ex Benth. in DC. Prodr. 10:419. 1846, nom. in syn. sub Ilysanthes gratioloides (Linn.) Benth.=Lindernia dubia (Linn.) Pennell.

\*varians Raf. ex M'Murtrie, Sketch. Louisv. 218. 1819, nom.

Kentucky.

HABERSHAMIA Raf. Neogen. 2. 1825, descr.=Bacopa Aubl. (1775), sect. Bramia (Lam.) Wettst.

cuneifolia Raf. 1.c., nom. (Herpestis cuneifolia Pursh; Monniera cuneifolia Michx.); Aut. Bot. 44. 1840, nom. Florida = Bacopa monnieri (Linn.) Pennell, Proc. Acad. Nat. Sci. Philadelphia 98:94. 1946 (Bramia monnieri Pennell).

HEMIANTHUS Nutt.

†micranthus Raf. Aut. Bot. 46. 1840, nom., sphalm.=H. micranthemoides Nutt.; Pennell, Torreya 22:80. 1922, nom., nota. North America.

HEMITOMUS L'Hérit. (1804) = Alonsoa Ruiz & Pavon (1798). \*lanceolatus Raf. Aut. Bot. 19. 1840, descr. Florida, West

Indies.

HERPESTIS Gaertn. f.

bicolor Mill. & Muhl. ex Raf. Cincinnati Lit. Gaz. 1:84. 1824. nom. sub Collinsia bicolor Raf. Pennsylvania=Collinsia verna Nutt.

HYDROPYXIS Raf. Fl. Ludovic. 94. 1817, descr.=? Bacopa Aubl. (1775).89

palustris Raf. 1.c., descr. (Pourpier des marais Rob. Voy. Louis, 3:488, 1807). Louisiana = ? Bacopa monnieri (Linn.) Pennell, Proc. Acad. Nat. Sci. Philadelphia 98:94, 1946.

ILYSANTHES Raf. Ann. Nat. Ann. Synop. 13. 1820, descr.; Fl. Tellur. 4:58. 1836 [1838], descr.=Lindernia All. (1755). anagallidea Raf. Aut. Bot. 46. 1840, descr. [Gratiola anagallidea Michx.]. Alabama, Kentucky=Lindernia anagallidea

(Michx.) Pennell.

attenuata Raf. ex Benth. in DC. Prodr. 10:419. 1846, nom. in syn. sub Lindernia gratioloides Benth. North America= Lindernia dubia (Linn.) Pennell. brevipes Raf. Aut. Bot. 45. 1840, descr. New Jersey, Penn-

sylvania = Ilysanthes dubia Barnh. = Lindernia dubia (Linn.)

Pennell.

dilatata Raf. op. cit. 46, nom. [Lindernia †dilatata Muhl. Cat. 59. 1813]; Benth. in DC. Prodr. 10:419. 1846, nom. in syn. Pennsylvania, Carolina=Lindernia anagallidea (Michx.) Pennell.

geniculata Raf. op. cit. 45, descr. Long Island and southern New Jersey=? Lindernia anagallidea (Michx.) Pennell.

\*monticola Raf. l.c., nom. [Lindernia \*monticola Muhl. Cat. 59. 1813, nom.]. Alleghany Mountains=Lindernia monticola Muhl. ex Nutt. Gen. Add. 156. 1818, descr.

refracta Raf. op. cit. 46, nom. [Lindernia refracta Ell.]. Caro-

lina, Florida=Lindernia monticola Muhl.

riparia Raf. Ann. Nat. Ann. Synop. 13. 1820, descr.; Aut. Bot. 45. 1840, descr. (Lindernia †attenuata Muhl. Cat. 59. 1813, nom.); Benth. in DC. Prodr. 10:419. 1846, nom. in syn. sub Hysanthes gratioloides (Linn.) Benth. Ohio River Lindernia dubia (Linn.) Pennell, var. riparia (Raf.) Fernald, Rhodora 44:444. 1942.

var. alba Raf. Aut. Bot. 45. 1840, nom.

angustifolia Raf. l.c., nom. cerulea 1.c., nom. erecta Raf. 1.c., nom. incarnata Raf. 1.c., nom. repens Raf. 1.c., nom.

#IMPULA Raf. Aut. Bot. 44. 1840, sub Ambulia micrantha Raf.; descr., nom. provis. subgen. Ambulia Raf. Florida = Scoparia Linn.

#ISONICA Raf. Fl. Tellur. 4. 54. 1836 [1838], descr., subgen. Veronica Linn. (Type Veronica chamaedrys Linn.)=Veronica Linn.

39 Dr. Pennell, in lit., now thinks that the Robin's description was a composite, based in part on Bramia and in part on Centunculus minimus Linn. of the Primulaceae.

**KURITES** Raf. Fl. Tellur. 2:63. 1836 [1837], descr. = Selago

ciliata Raf. op. cit. 64, descr. (Selago ciliata sensu Choisy). South Africa.

gilii Raf. 1.c., descr. (Selago gillii Hook. Bot. Mag. 57: t. 3028. South Africa.

LASIAKE Raf. Fl. Tellur. 4:89. 1836 [1838], descr.=Verbascum Linn.

lyratum Raf. ex Jacks\*. Ind. Kew. 2:33. 1894 (Verbascum lyratum Lam.). Greece=Celsia cretica Linn. f.

plicatum Raf. ex Jacks\*. 1.c. (Verbascum plicatum Sibth. & Sm.). Greece.

LEIOSANDRA Raf. Fl. Tellur. 4:89. 1836 [1838], descr.= Verbascum Linn.

crassifolia Raf. 1.c., nom. (Verbascum erassifolium DC.). Europe=Verbascum montanum Schrad.

cuspidata Raf. 1.c., nom. (Verbascum cuspidatum Schrad.). Europe=Verbascum thapsus Linn.

LEIOSTEMON Raf. Neogen. 2. 1825, descr.; Atl. Jour. 1:145. 1832, descr.=Penstemon Schmidel (1762) (Pentstemon Ait., 1789; Pentastemon Batsch, 1802).

frutescens Raf. ex Jacks\*. Ind. Kew. 2:50. 1894 (Pentstemon

frutescens Lamb.). Northwestern North America.

purpureum Raf. Atl. Jour. 1:145. 1832, nom. (Pentstemon ambiguus Torr.). Central United States=Penstemon ambiguus Torr.

LEPTANDRA Nutt.=Veronicastrum Fabr. (1759).

alba Raf. Med. Fl. 2:21. 1830, descr. (Veronica virginica
Linn.). Eastern United States=Veronica virginica Linn.= Veronicastrum virginicum (Linn.) Farwell. var. angustifolia Raf. 1.c., nom.

macrostachya Raf. 1.c., nom. (sphalm. "macrostadrva").

multicaulis Raf. 1.c., nom. polystachya Raf. 1.c., nom.

quadrifolia Raf. 1.c., nom.
\*cerulea Raf. 1.c., nom. (Veronica siberica Linn.: Ind. Kew. 2:61. 1894 ut caerulea). Asia=Veronica siberica Linn.= Veronicastrum sp.

japonica Raf. 1.c., nom. (Veronica virginica sensu Thunb.). Japan=Veronica virginica Linn. var. japonica Nakai= Veronicastrum sp.

†oppositifolia Raf. Herb. Raf. 65. 1833, nom.; New Fl. N. Am. 2:21. 1836 [1837], nom. alt. Eustachya oppositifolia Raf. Eastern United States=Veronicastrum virginicum (Linn.) Farwell.

purpurea Raf. Med. Fl. 2:20. f. 59. 1830, descr. [Eustachya purpurea Raf.]; Herb. Raf. 60. 1833, nom. Eastern United States=Veronicastrum virginicum (Linn.) Farwell.

var. heterophylla Raf. op. cit. 21, descr. pallida Raf. l.c., descr.

prolifera Raf. 1.c., descr \*trifolia Raf. Herb. Raf. 60. 1833, nom. Kentucky or Illinois.

villosa Raf. Med. Fl. 2:21. 1830, descr. North Carolina=

Veronicastrum virginicum (Linn.) Farwell. LEPTEIRIS Raf. New Fl. N. Am. 2:73. 1836 [1837], descr.; Good Book 45. 1840, nom.=Penstemon Schmidel (1763). parviflora Raf. New Fl. 1.c., descr. (Pentstemon micranthus

Nutt.). Oregon. LIMOSELLA Linn. \*brachistema Raf. Am. Monthly Mag. Crit. Rev. 3:273. 1818, nom., nota [Limosella subulata Ives, 1817]. Eastern

United States=Limosella subulata Ives. . maritima Raf. Atl. Jour. 1:199. 1833, nom. alt. Ygramela maritima Raf. = Limosella subulata Ives, forma maritima

(Raf.) Pennell. Eastern United States. \*silesiaca Raf. 1.c., nom. sub Ygramela Raf. [Limosella aquatica Linn. var. silesiaca Pers. Syn. 2:167. 1806]. Europe=L. aquatica Linn.

LOPHANTHERA Raf. New Fl. N. Am. 2:58. 1836 [1837], descr. = Sopubia Buch.-Ham. (1825).

delphinifolia Raf. ex Jacks\*. Ind. Kew. 2:112. 1894 (Gerardia delphinifolia Linn.). India = Sopubia delphinifolia (Linn.) G. Don.

#MACROLLA Raf. Herb. Raf. 39. 1833, nom., subgen. Bartsia

MACUILLAMIA Raf. Neogen. 2. 1825, descr.; Aut. Bot. 44, 69. 1840, nom., nota=Hydrotrida Small (1913)=Bacopa Aubl. (1775), sect. Chaetodiscus (Benth.) Wettst. subsect. Hydrotrida (Small) Pennell, Proc. Acad. Nat. Sci. Philadelphia 98:97. 1946.

amplexicaulis Raf. Aut. Bot. 44. 1840, nom. (Monnicra amplexicaulis Michx.). Carolina to Florida=Bacopa amplexicaulis (Michx.) Wettst.

obovata Raf. Aut. Bot. 44. 1840, descr. Virginia (Potomac River) and Louisiana=? Gratiola virginiana Linn., var.; see Fernald, Rhodora 44:438. 1942; see Pennell, op. cit. 96. rotundifolia Raf. 1.c., descr. (Monniera rotundifolia Michx.).

Illinois=Ranalapus rotundifolius (Michx.) Pennell. South Dakota, Illinois and Indiana southward to Texas.

#MEIONICA Raf. Fl. Tellur. 4:55. 1836 [1838], descr., subgen. Veronica Linn. (Type Veronica montana Linn.).

MELAMPYRUM Linn.

Mountains, New Jersey to Kentucky=Melampyrum lineare Lam. var. americanum (Michx.) Beauverd.

\*radiatum Raf. I.c., descr. Siberia. MICALIA Raf. Fl. Tellur. 2:104. 1836 [1837], descr.=Escobedia Ruiz & Pavon (1794).

grandiflora Raf. op. cit. 105, descr. (Buchnera grandiflora Linn. f.). South America = Escobedia grandiflora (Linn. f.)

\*MICRANTHUS Raf. Anal. Nat. Tabl. Univ. 189. 1815, nom. =Micranthemum Michx. (1803), nom. conserv. (Globifera J. F. Gmel., 1791).

MIMULUS Linn.

pteropus Raf. Fl. Ludovic. 44. 1817, descr. (Mimulus alatus sensu Rob. Voy. Louis. 3:396. 1807). Louisiana = M. ringens Linn.

MISOPATES Raf. Aut. Bot. 155, nom., 158, descr. 1840; Pennell, Bull. Torr. Bot. Club 48:95. 1921, nom.=Antirrhinum Linn.

orontium Raf. op. cit. 158, descr. (Antirrhinum orontium Linn.; Orontium arvense Pers.); Pennell, l.c., nom. Europe and? North America.

MUTAFINIA Raf. Atl. Jour. 1:199. 1833, nom., nota sub Ygramela Raf.; Fl. Tellur. 4:57. 1836 [1837], nom., nota sub Ygramela Raf., "gen. vel subgen." = Limosella Linn. capensis Raf. ex Jacks\*. Ind. Kew. 2:274. 1894 (Limosella appropriate Thumb.) South Africa.

capensis Thunb.). South Africa.
silesiaca Raf. ex Jacks\*. l.c. [Limosella aquatica Linn. var.
silesiaca Pers. Syn. 2:167. 1806]. Europe=Limosella aquatica Linn.

NIBORA Raf. Fl. Ludovic. 36. 1817, descr.=Gratiola Linn. aquatica Raf. op. cit. 37, descr. (Acanthe des marais Rob. Yoy. Louis. 3:381. 1807). Louisiana=Gratiola virginiana

Linn. ODICARDIS Raf. Fl. Tellur. 4:55. 1836 [1838], descr.=Veronica Linn.

cristagalli Raf. 1.c., descr. (Veronica cristagalli Stev.). Caucasus Mountains.

\*OPHIANTHES Raf. Med. Fl. 2:118. 1830, nom. nov. provis. Chelone Linn.; Casket 1831:513. 1831, nom. (Chelone Linn.); Sat. Eve. Post 10(536):[4]. 1831, nom. (Chelone Linn.) = Chelone Linn.

#ORBONICA Raf. Fl. Tellur. 4:55. 1836 [1838], descr., subgen. Veronica Linn. (Type Veronica arguta Schrad.). Europe.

OVOSTIMA Raf. New Fl. N. Am. 2:70. 1836 [1837], descr.; Good Book 45. 1840, nom.=Aureolaria Raf. (1837).

petiolata Raf. 1.c., descr. Florida or Alabama=Aureolaria flava (Linn.) Farwell, var. macrantha Pennell.

\*PAGERIA Raf. Good Book 45. 1840, nom., sphalm.=seq. PAGESIA Raf. Fl. Ludovic. 48. 1817, descr.; New Fl. N. Am. 2:69. 1836 [1837], descr. leucantha Raf. Fl. Ludovic. 49. descr. (Chelone 2 Rob. Voy.

Louis. 3:406. 1807); New Fl. l.c., descr. Western Louisiana and Texas=Pagesia acuminata (Walt.) Pennell (Gerardia cuneifolia Pursh).

PANCTENIS Raf. New Fl. N. Am. 2:60. 1836 [1837], descr.; op. cit. 72, nom.; Good Book 45. 1840, nom.=Aureolaria Raf. (1837).

pectinata Raf. op. cit. 61, descr. (Gerardia pedicularia Linn. var. pectinata Nutt.). Carolina and the Alleghany Mountains=Aureolaria pectinata (Nutt.) Pennell. pedicularis Raf. l.c., descr. (Gerardia pedicularia Linn.).

Eastern North America=Aureolaria pedicularia (Linn.)

var. pumila Raf. 1.c., nom. ramosissima Raf. 1.c., nom. simplex Raf. 1.c., nom.

pumila Raf. Î.c., descr. Alleghany Mountains=praec.

PANOXIS Raf. Med. Fl. 2:109. 1830, descr.; Fl. Tellur. 4:55. 1836 [1838], descr.=Hebe Commers. (1789). cataractae Raf. ex Jacks\*. Ind. Kew. 2:420. 1894 (Veronica catarractae Forst. f.) New Zealand=Hebe catarractae (Forst. f.) Wall.

macrocarpa Raf. ex Jacks\*. 1.c. (Veronica macrocarpa Vahl). New Zealand=Hebe macrocarpa (Vahl) Cockayne & Allan.

salicifolia Raf. ex Jacks\*. 1.c. (Veronica salicifolia Forst. f.). New Zealand=Hebe salicifolia (Forst. f.) Pennell.

PEDICULARIS Linn.

\*villosa Raf. Western Minerva 41. 1821, nom., iter. Fox, Science II. 12:213. 1900 [Kentucky].

PEGESIA Raf. ex Steud. Nomencl. ed. 2, 2:282. 1841, nom.,

sphalm.=Pagesia Raf. (1817).

PELORIA Linn. Amoen. Acad. 1:55. 1749, Sp. Pl. ed. 2, 859. 1763, descr. sub Antirrhinum linaria Linn. = Linaria Mill. \*genistifolia Raf. Aut. Bot. 156. 1840, nom. (Antirrhinum genistifolium Linn.). Europe = Linaria genistifolia (Linn.)

Mill. (peloric state).
\*linaria Raf. op. cit. 20, nom., 156, nom., nota (Antirrhinum linaria Linn.). Europe=Linaria vulgaris Hill (peloric state)

PELTIMELA Raf. Atl. Jour. 1:199. 1833, descr.; Fl. Tellur. 4:57. 1836 [1838], descr.=Glossostigma Arn. (1836), nom. conserv. (Peltimela Raf., 1833).
cuneata Raf. 11.cc., descr. (Limosella diandra Linn.). India=

Glossostigma diandrum (Linn.) O. Kuntze (G. spathulatum

Wight & Arn.).

\*PENSLEMON Raf. Casket 1831:513. 1831, nom.; Sat. Eve. Post 10(536):[4]. 1831, nom., sphalm.=Pentostemon Raf. (1824)=Penstemon Schmidel (1762) (Pentstemon Ait., 1789)

\*PENSTEMUM Raf. Seringe Bull. Bot. 1:215. 1830, nom.=

\*PENSTEMUM Raf. Seringe Bull. Bot. 1:215. 1830, nom. =
Penstemon Schmidel (1762) (Pentstemon Ait., 1789).

PENTOSTEMON Raf. First Cat. Bot. Gard. Transylv. Univ.
15. 1824, nom.; Neogen. 2. 1825, nom.; Casket 1828:428.
1828, nom.; Sat. Eve. Post 7(372):[4]. 1828; Med. Fl.
2:118. 1830, nom.; Atl. Jour. 1:145. 1832; 176. 1833, nom.
nov. Penstemon Mitch.; Herb. Raf. 20. 1833, nom. (Penstemon Mitch.); New Fl. N. Am. 1:27. 1836, nom.; op. cit.
2:73. 1836 [1837], nom. (Penstemon Mitch.); Fl. Tellur. 1:
18. 1836 [1837], nom. (Penstemon Mitch.) = Penstemon
Schmidel 1762 (Pentstemon Ait., 1789).

\*ambiguus Raf. Atl. Jour. 1:145. 1832, nom. Rocky Mountains = Penstemon ambiguus Torr.

tains=Penstemon ambiguus Torr.
\*atropurpureus Raf. op. cit. 176. 1833, descr.; Herb. Raf.
20. 1833, descr. Texas=Penstemon barbatus (Cav.) Roth. \*capitatus Raf. Herb. Raf. 51. 1833, nom. Rocky Mountains or Oregon.

\*dentatus Raf. op. cit. 39, nom. Upper Missouri (Mandan

country) = Dakota.

\*diffusus Raf. op. cit. 50, nom. Rocky Mountains or Oregon. [Penstemon diffusus Dougl.?].

\*gracilis Raf. l.c., nom. [Penstemon gracilis Nutt.]. Rocky Mountains or Oregon.

\*grandiflorus Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom. Kentucky.

\*latifolius Raf. Herb. Raf. 50. 1833, nom. Rocky Mountains or Oregon.

\*levigatus Raf. First Cat. Bot. Gard. Transylv. Univ. 15.

\*roseus Raf. First Cat. Bot. Gard. Transylv. Cinv. 13. 1824, nom. Kentucky [Penstemon laevigatus Ait.].

\*micranthus Raf. New Fl. N. Am. 2:73. 1836 [1837], nom. (Penstemon micranthus Nutt.). Western North America.

\*roseus Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824,

nom. Kentucky.

\*scouleri Raf. New Fl. N. Am. 2:72. 1836 [1837], nom.
Northwestern United States=Penstemon scouleri Dougl.

PONARIA Raf. Med. Fl. 2:109. 1830, descr.; Fl. Tellur. 4:56. 1836 [1838], descr.=Veronica Linn.

laciniata Raf. ex Jacks\*. Ind. Kew. 2:603. 1894 (Veronica laciniata Moench). Europe.

latifolia Raf. ex Jacks\*. 1.c. (Veronica latifolia Linn.). Europe, pona Raf. ex Jacks\*. 1.c. (Veronica ponae Gouan). Europe. \*PORFURIS Raf. Aut. Bot. 155. 1840, nom., in obs. sub Antirrhinum Linn.=Nemesia Vent. (1803).

\*pinnatifida Raf. 1.c., nom. (Antirrhinum pinnatum Linn.).
South Africa=Nemesia pinnata (Linn.) E. Mey.

#PRIONULA Raf. Fl. Tellur. 4:89. 1836 [1838], nom. subgen.

Lasiake Raf. (Type Verbascum lyratum Lam.)=Celsia Linn.

PROBATEA Raf. Aut. Bot. 155, nom., 157, descr., 1840, nom. nov. Asarina Mill.; Pennell, Bull. Torr. Bot. Club 48:95. 1921, nom.=Antirrhinum Linn. (Asarina Mill.)

\*grandiflora Raf. op. cit. 158, descr. (Antirrhinum asarina Linn.; Orontium asarina Pers.; Asarina cordifolia Moench).

Switzerland=Antirrhinum asarina Linn.

\*lobata Raf. l.c., descr. Siberia. #PSIDIOLA Raf. Fl. Tellur. 4:58. 1836 [1838], descr., subgen. Gratiola Linn.; Aut. Bot. 43. 1840, nom., nota. (Type Gratiola callosa Raf.) = Gratiola Linn.

RUSSELIA Jacq.
flammea Raf. New Fl. N. Am. 2:71. 1837, descr. (Gerardia \*flammea Bartr. Trav. 412. 1791, descr.). Alabama=Macranthera flammea (Bartr.) Pennell.

SCROPHULARIA Linn. \*adenopa Raf. Aut. Bot. 161. 1840, descr. Kentucky, Ohio= S. marilandica Linn.

\*capitata Raf. op. cit. 162, descr. Alps of Bavaria.

\*crenata Raf. 1.c., descr. Europe.

dimidiata Raf. op. cit. 161, descr. Carolina, Florida=? S. lanceolata Pursh fide Pennell, Torreya 22:83. 1922. \*diversifolia Raf. l.c., descr. Delaware to Virginia=S. mari-

landica Linn.

\*glauca Raf. op. cit. 160, nom. nov. S. marilandica Linn. East-

ern North America = S. marilandica Linn.

hastata Raf. Fl. Ludovic. 44. 1817, descr. (Scrophularia marilandica sensu Rob. Voy. Louis. 3:395. 1807); Med. Fl. 2:262. 1830, nom. Louisiana. An Scrophulariaceae?

\*lanceolata Raf. Med. Fl. 2:262. 1830, nom. Hab.?

\*lyrata Raf. Aut. Bot. 162. 1840, descr. Central America.

marilandica Linn. Eastern North America. var. latifolia Raf. op. cit. 161, nom. longifolia Raf. 1.c., nom.

obliquata Raf. l.c., nom.

pumila Raf. I.c., nom.

pectinata Raf. op. cit. 160, descr. Long Island and New Jersey=S. lanceolata Pursh, fide Pennell, Torreya 22:81. 1922

\*serrulata Raf. op. cit. 161, descr. Alleghany Mountains=S. marilandica Linn.

\*sylvatica Raf. Med. Fl. 2:262. 1830, nom. Hab.?

\*triflora Raf. 1.c., descr. Siberia.

\*truncata Raf. op. cit. 162, descr. Russia.

\*EPTILIA Raf. Fl. Tellur. 4:68. 1836 [1838], nom. nov. Septas Lour. (1790) = Bacopa Aubl. (1775), sect. Bramia (Lam.) Wettst.

repens Raf. 1.c., nom. (Septas repens Lour.; Thunbergia repens Pers.). China (Kwangtung)=Bacopa monnieri (Linn.) Pennell, Proc. Acad. Nat. Sci. Philadelphia 98:94. 1946 (Bramia monnieri Pennell).

SEYMERIA Pursh (1814), nom. conserv. (Afzelia J. F. Gmel.,

heterophyla Raf. New Fl. N. Am. 2:68. 1836 [1837], descr. (Seymeria jacksoni Ell.). Georgia, Alabama=Seymeria pectinata Pursh (Afzelia pectinata O. Kuntze).

TERMONTIS Raf. Chloris Aetn. 5. 1815, nom. (Antirrhinum chalepensis Linn.) = Linaria Mill. (1752).

chalepensis Raf. 1.c., nom. (Antirrhinum chalepense Linn.).

Spain=Linaria chalepensis (Linn.) Mill. cordata Raf. l.c., nom. Sicily.

purpurea Raf. op. cit. 10, nom. (Antirrhinum purpureum Linn.) Sicily=Linaria purpurea (Linn.) Mill.

villosa Raf. op. cit. 5, nom. (Antirrhinum villosum Linn.)= Linaria villosa (Linn.) Mill.

\*TERMONTIS Raf. Aut. Bot. 155. 1840, nom., op. cit. 158, nom., nota (Orontium sensu Pers., non Linn.); Pennell. Bull. Torr. Bot. Club 48:95. 1921, nom., vix Termontis Raf. (1815) = Antirrhinum Linn.

\*racemosa Raf. op. cit. 158, descr. (Antirrhinum majus Linn.); Pennell, 1.c., nom. Europe.

\*sicula Raf. op. cit. 159, descr. (Antirrhinum siculum Mill.). Sicily.

\*tricolor Raf. l.c., descr. Apennine Mountains, Italy.

THAPSUS Raf. Fl. Tellur. 4:89. 1836 [1838], descr.=Verbascum Linn.

blattaria Raf. ex Jacks\*. Ind. Kew. 2:1061. 1895 (Verbascum blattaria Linn.). Europe.

floccosus Raf. ex Jacks\*. 1.c. (Verbascum floccosum Waldst. & Kit.). Europe.

lychnitis Raf. ex Jacks\*. l.c. (Verbascum lychnitis Linn.). Europe.

montanus Raf. ex Jacks\*. 1.c. (Verbascum montanum Schrad.). Europe.

mucronatus Raf. ex Jacks\*. 1.c. (Verbascum mucronatum

Lam.). Asia Minor, Crete. nigrus Raf. ex Jacks\*. l.c. (Verbascum nigrum Linn.). Europe. pheniceus Raf. ex Jacks\*. 1.c. (Verbascum phoeniceum Linn.).

pulverulentus Raf. ex Jacks\*. 1.c. (Verbascum pulverulentum

Vill.). Southern Europe.

sinuatus Raf. ex Jacks\*. 1.c. (Verbascum sinuatum Linn.). Southern Europe.

thapsoides Raf. ex Jacks\*. 1.c. (Verbascum thapsoides Linn.). Europe

TOMANTHERA Raf. New Fl. N. Am. 2:65. 1836 [1837], descr.

(Otophylla Benth., 1846); Good Book 45. 1840, nom. auriculata Raf. op. cit. 66, descr. (Gerardia auriculata Michx.). Illinois, Louisiana=Tomanthera auriculata (Michx.) Raf. (Otophylla michauxii Benth.; O. auriculata Small).

lanceolata Raf. 1.c., descr. (Erinus \*africanus Muhl. Cat. 59. 1813, non Linn.; Gerardia auriculata Michx.). Pennsyl-

vania to Carolina=praec.

TOMILIX Raf. New Fl. N. Am. 2:72. 1836 [1837], nom. nov.

provis. Macranthera Torr. (1835).
bracteata Raf. 1.c., nom. alt. Macranthera fuchsioides Torr.,
(Toxopus calicinus Raf.) = Macranthera fuchsioides Torr.= Macranthera flammea (Bartr.) Pennell. Southeastern United

TOXOPUS Raf. New Fl. N. Am. 2:71, 72. 1836 [1837], nom. nov. provis. Macranthera Torr. (1835).

calycinus Raf. op. cit. 72, nom. nov. Macranthera fuchsioides Torr. Southeastern United States = Macranthera flammea (Bartr.) Pennell.

gymnanthes Raf. 1.c., nom. nov. Macranthera lecontii Torr.

Florida = praec.

TURSITIS Raf. Aut. Bot. 156. 1840, descr. (Elatine Moench, 1794, non Linn. 1753); Pennell, Bull. Torr. Bot. Club 48:95. 1891, nom.=Kickxia Dum. (1827)

\*cymbalaria Raf. 1.c., nom. (Antirrhinum cymbalaria Linn.).

Europe=Linaria cymbalaria (Linn.) Mill.

\*egyptiaca Raf. op. cit. 157, descr. (Antirrhinum aegyptiacum Linn.). North Africa=Linaria aegyptiaca (Linn.) Dum.-Cours.=Kickxia aegyptiaca (Linn.) Náb.
elatine Raf. op. cit. 156, nom. (Antirrhinum elatine Linn.);
Pennell, Bull. Torr. Bot. Club 48:95. 1921, nom. Europe=
Linaria elatine Mill.=Kickxia elatine (Linn.) Dum.
filifera Raf. op. cit. 157, descr. Alabama, Louisiana=Kickxia elatine (Linn.) Dumort. filde Pennell, Torreya 22:84. 1922

(Linaria elatine Mill.).

\*flexuosa Raf. 1.c., descr. Europe \*reniformis Raf. l.c., descr. Sicily.

\*rotundifolia Raf. l.c., descr. (Antirrhinum spurium Linn.).
Europe=Linaria spuria Mill.=Kickxia spuria (Linn.) Dum. \*UCNOPSOLON Raf. Aut. Bot. 155. 1840, nom., sub Antirrhinum

Linn.=Lindernia All. (1755).

\*cordatum Raf. l.c., nom. (Antirrhinum hexandrum Forsk.; Linaria hexandra F. G. Dietr.). Tropical Asia=Lindernia crustacea (Linn.) F. Muell.

UVEDALIA R. Br.=Mimulus Linn.

\*americana Raf. First Cat. Bot. Gard. Transylv. Univ. 16. 1824, nom. Kentucky.

VERBASCUM Linn.

\*collinsi Raf. Aut. Bot. 111. 1840, descr. Southern Europe. \*macrophylum Raf. 1.c., nom. alt. Verbascum pyramidale Raf. Asia?

\*pyramidale Raf. 1.c., descr. Asia?

\*spicatum Raf. op. cit. 110, descr. Europe.

VERONICA Linn.

beccabunga Linn. var. americana Raf. Med. Fl. 2:109. 1830, descr. Eastern North America=V. americana (Raf.) Schwein. procumbens Raf. 1.c., nom. alt. V. beccabunga Linn.

var. americana Raf. = praec.
\*cataracta Raf. Med. Fl. 2:109. 1830, nom. = V. catarractae
Forst. f. = Hebe catarractae (Forst. f.) Wall. New Zealand. cinerea Raf. New Fl. N. Am. 4:39. 1836 [1838], descr. Ore-

gon=Besseya cinerea (Raf.) Pennell. †connata Raf. Western Minerva 41. 1821, nom.; iter. Fox, Science II. 12:213. 1900; First Cat. Bot. Gard. Transylv. Univ. 16. 1824, nom.; Med. Fl. 2:110. 1830, descr.; Atl. Jour. 1:150. 1832, descr.; Herb. Raf. 61. 1833, nom.; New Fl. N. Am. 4:37. 1836 [1838], descr. Western Kentucky, Illinois and Missouri; see Pennell, Acad. Nat. Sci. Philadelphia Monog. 1:364-370. 1935; Fassett, Jour. Wash. Acad. Sci. 37:253-254. 1947 (V. salina Schur, 1866, V. catenata Pennell, 1921).

diffusa Raf. New Fl. N. Am. 4:38. 1836 [1838], descr., nom. nov. Veronica precox Raf. Bartram's Garden, Philadelphia = V. persica Poir.

\*longifolia Raf. Herb. Raf. 50. 1833, nom. Rocky Mountains

or Oregon.

missourica Raf. Am. Monthly Mag. Crit. Rev. 2:175. 1817, nom. nov. Veronica reniformis Pursh (1814), non Raf. (1808) (V. purshii G. Don, 1838). Missouri River=Synthyris missurica (Raf.) Pennell, Proc. Acad. Nat. Sci. Philadelphia 85:89. 1935.

mollis Raf. Herb. Raf. 50. 1833, nom.; New Fl. N. Am. 4:83. 1836 [1838], descr.; Aut. Bot. 10. 1840, nom. Oregon = V. wormskjoldii Roem. & Schultes.

perfoliata Raf. New Fl. N. Am. 4:37. 1836 [1838], descr. Florida; see Pennell, Acad. Nat. Sci. Philadelphia Monog. 1:363. 1935, sp. dub.

\*prealta Raf. Western Rev. Miscel. Mag. 2:92. 1819, nom.

Kentucky.

precox Raf. Atl. Jour. 1:79. 1832, descr., non All. Bartram's Garden, Philadelphia=V. diffusa Raf. New Fl. N. Am. 4: 38. 1836 [1838] = V. persica Poir.

reniformis Raf. Med. Repos. II. 5:360. 1808, descr.; Jour. Bot. 1:228. 1809, descr. New Jersey =? V. hederaefolia

Linn.

sparsiflora Raf. Atl. Jour. 1:79. 1832, descr.; Herb. Raf. 50. 1833, nom.; New Fl. N. Am. 4:38. 1836 [1838], descr.; Aut. Bot. 10. 1840, nom. "Arkansas or Texas"; see Pennell, Acad. Nat. Sci. Phila. Monog. 1:633. 1935. Missouri. Arkansas, Texas. See Pennell, Acad. Nat. Sci. Philadelphia Monog. 1:633. 1935, "probably a Eurasian species."

uliginosa Raf. Am. Monthly Mag. Crit. Rev. 1:358. 1817.
nom. (V. scutellata sensu Bigelow); op. cit. 2:175, 344.
1818, nom., nota (Veronica scutellata sensu Bigelow et Pursh); M'Murtrie, Sketch. Louisv. 228. 1819, nom. North

America=Veronica scutellata Linn.

YGRAMELA Raf. Atl. Jour. 1:199. 1833, descr.; Fl. Tellur. 4:57. 1836 [1838], descr.=Limosella Linn.

maritima Raf. Il.cc., descr.; Herb. Raf. 69. 1833, nom. Long Island, New Jersey, Chesapeake Bay=Limosella subulata Ives (1817), forma maritima (Raf.) Pennell.

\*YGRAMELTA Raf. Atl. Jour. 1:199. 1833, nom., sphalm., sub Ygramela Raf.=Limosella Linn.

ZELIAUROS Raf. Aut. Bot. 184. 1840, descr.; Pennell. Bull. Torr. Bot. Club. 48:95. 1921, nom.=? Veronica Linn.

repens Raf. op. cit. 185, descr., Pennell, I.c., nom. Spain or Morocco.

# BIGNONIACEAE

BIGNONIA Linn.

\*bracteata Bartr. Trav. 468. 1791, nom.; Raf. Casket 1827: 194. 1827, nom. in syn. sub Pinckneya bracteata Raf.; Sat. Eve. Post 6(303):[4]. 1827, nom. (Pinckneya bracteata Raf.). Southern United States=Pinckneya pubens Michx. (1803)

CATALPIUM Raf. Princ. Somiol. 27. 1814, nom. nov. Catalpa Scop.; Am. Monthly Mag. Crit. Rev. 2:175. 1818, nom. (Catalpa Scop.); op. cit. 3:100. 1818, nom.; Jour. Phys. Chim. Hist. Nat. 89:259. 1819, nom. (Catalpa Scop.)= Catalpa Scop.

amenum Raf. Fl. Ludovic. 139. 1817, nom. (Bignonia catalpa Linn.; Catalpa syringaefolium Sims). Louisiana=Catalpa

bignonioides Walt.

\*cordatum Raf. Western Rev. Miscel. Mag. 1:93. 1819, nom. Kentucky=C. cordifolium Raf.=C. bignonioides Walt.

\*cordifolium Raf. Am. Monthly Mag. Crit. Rev. 4:190. 1819, nom., nota [Catalpa cordifolia Jaume]. Eastern North America=Catalpa bignonioides Walt.

CRESCENTIA Linn.

arborea Raf. Sylva Tellur. 81. 1838, descr. West Indies, South America.

latifolia Raf. l.c., descr. West Indies, South America.

pumila Raf. 1.c., descr. West Indies, South America. CUPULISSA Raf. Fl. Tellur. 2:57. 1836 [1837], descr.= Anemopaegma Mart. (1845), nom. conserv. propositum.

CUPULISSA (continued).

grandifolia Raf. 1.c., descr. (Bignonia grandifolia Jacq. Pl. Hort. Schoenbr. 3:19. t. 287. 1798; Ker-Gawl. Bot. Reg. 5: t. 418. 1819; Hook. Bot. Mag. 57: t. 3011. 1830). Venezuela = Anemopaegma grandifolium (Jacq.) Merr. & Sandw. Jour. Arnold Arb. 28:432. 1947.

DENDROSICUS Raf. Sylva Tellur. 80. 1838, descr. = Crescentia

Linn.

saxatilis Raf. I.c., descr. (Crescentia cucurbitina Linn.). West Indies

ENDOLOMA Raf. Sylva Tellur. 79. 1838, descr. = Amphilophium Kunth (1818).

purpurea Raf. op. cit. 80, descr. (Bignonia paniculata Linn.). South America = Amphilophium paniculatum (Linn.) H.B.K.

ETORLOBA Raf. Sylva Tellur. 79. 1838, nom. alt. Rafinesquia Raf. = Jacaranda Juss. (1789).

cerulea Raf. l.c., nom. alt. Rafinesquia cerulea Raf. (Bignonia caerulea Linn.). West Indies=Jacaranda caerulea (Linn.)

HIERANTHES Raf. Sylva Tellur. 79. 1838, descr. = Stereospermum Cham. (1832).

fragrans Raf. 1.c., descr. (Bignonia chelonoides Linn. f.). India Stereospermum chelonoides (Linn. f.) DC.

HIPPOXYLON Raf. Sylva Tellur. 78. 1838, descr. = Oroxylon Vent. (1808).

indicum Raf. 1.c., descr. (Bignonia indica Linn.). India= Oroxylon indicum (Linn.) Vent.

KIGELKEIA Raf. Sylva Tellur. 166. 1838, descr.=Kigelia DC. (1845).

\*pinnata Raf. 1.c., nom., nota (Crescentia pinnata Jacq.; Tanaecium pinnatum Willd.). East Africa=Kigelia pinnata (Jacq.) DC.

LEUCOXYLON Raf. Sylva Tellur. 77. 1838, descr.=Tabebuia

Gomez (1803).

acuminata Raf. op. cit. 78. descr. (Bignonia leucoxylon Linn.).

South America = Tecoma leucoxylon (Linn.) Mart.
riparia Raf. op. cit. 77, descr. (Bignonia leucoxylon sensu
Sw.). Jamaica = Tabebuia pentaphylla (Linn.) Hemsl.
#LOBONIS Raf. Sylva Tellur. 80. 1838, nom., nota, subgen.
Bignonia Linn. (Type Bignonia echinata Aubl. [vel Jacq.]) =Pithecoctenium Mart. (1840).

NEVRILIS Raf. Sylva Tellur. 138. 1838, descr.=Millingtonia Linn. f. (1781).

suberosa Raf. 1.c., descr. (Bignonia suberosa Roxb. Pl. Coromandel 3:11. t. 214. 1819; Millingtonia hortensis Linn. f.). India=Millingtonia hortensis Linn. f.

ODISCA Raf. Sylva Tellur. 80. 1838, descr. = Colea Boj. (1837), nom. conserv. (Tripinna Lour., 1790; Tripinnaria Pers., 1807; Uloma Raf. 1837).

rosea Raf. 1.c., descr. (Bignonia colei Boj. ex Hook. Bot. Mag. 55: t. 2817. 1828). Mauritius=Colea mauritiana Boj. PENTELESIA Raf. Sylva Tellur. 146. 1838, descr.=Arrabi-

(1838).daea DC. discolor Raf. 1.c., descr. (Bignonia carichanensis H.B.K.). Venezuela=Arrabidaea carichanensis (H.B.K.) Bur. & K. Schum.

PLATOLARIA Raf. Sylva Tellur. 78. 1838, descr. = Anemopaegma Mart. (1845). nom. conserv. propositum.

flavescens Raf. 1.c., descr. (Bignonia orbiculata Jacq.). Colombia (Cartagena) = Anemopaegma orbiculatum (Jacq.)
DC.; see Merr. & Sandw. Jour. Arnold Arb. 28:430. 1947.
PONGELIA Raf. Sylva Tellur. 78. 1838, descr. = Dolichandrone

Fenzl (1862)

longifiora Raf. op. cit. 79, descr. (Bignonia et Sphathodea auct.). Ceylon, Java, Moluccas=Dolichandrone spathacea (Linn. f.) K. Schum.

POTAMOXYLON Raf. Sylva Tellur. 78. 1838, descr. (Couralia

Splitg., 1841).
alba Raf. 1.c., descr. (Bignonia fluviatilis Aubl. Pl. Guian. 2: 655. t. 267. 1775). Guiana=Tabebuia fluviatilis DC.=Couralia fluviatilis (Aubl.) Splitg. (1841) = Potamoxylon fluviatile (Aubl.) Pichon, Bull. Soc. Bot. France 92:228. 1945.

PROTERPIA Raf. Sylva Tellur. 80. 1838, descr.=Tabebuia

Gomez (1803)

obtusifolia Raf. 1.c., descr. (Bignonia obtusifolia Lam.). Bra-

**RAFINESQUIA** Raf. Sylva Tellur. 79. 1838, descr. = Jacaranda Juss. (1789).

cerulea Raf. 1.c., descr. (Bignonia caerulea Linn.; Bignoniae flore caeruleo Catesby Nat. Hist. Carol. 1:42. t. 42. 1733). Florida, Bahamas = Jacaranda caerulea (Linn.) Juss (J. caroliniana Pers.).

SEREREA Raf. Sylva Tellur. 107. 1838, descr.=Pithecoctenium Mart. (1840).

heterophyla Raf. 1.c., descr. (Bignonia heterophylla Willd.;
Bignonia cherere Aubl.; Lindl. Bot. Reg. 15: t. 1301. 1830;
B. kerere Aubl. Pl. Guian. 2:644. 1775; B. cherere Aubl.
op. cit. t. 260). Guiana.
\*TALPA Raf. Am. Monthly Mag. Crit. Rev. 3:100. 1818, nom.

nov. Catalpa Scop.

TANAESIUM Raf. Sylva Tellur. 166. 1838, nom. sphalm.= Tanaecium Sw. (1788). TECOMA Juss.

\*crucigera Raf. First Cat. Bot. Gard. Transylv. Univ. 16. 1824, nom. [Bignonia crucigera Linn.]. Kentucky. ULOMA Raf. Fl. Tellur. 2:62, 1836 [1837], descr.=Colea Boj.

(1837), nom. conserv. (Tripinna Lour., 1790; Tripinnaria Pers., 1807).

telfairia Raf. l.c., descr. (Bignonia telfairiae Boj. ex Hook. Bot. Mag. 57: t. 2976. 1830). Madagascar = Colea telfairiae

#### PEDALIACEAE

BASONCA Raf. Fl. Tellur. 4:68. 1836 [1838], descr.=Rogeria J. Gay (1824).

longiflora Raf. l.c., nom. (Martynia longiflora Linn.). South Africa=Rogeria longiflora (Linn.) J. Gay.

DYSOSMON Raf. Fl. Ludovic. 48. 1817, descr. = Sesamum Linn. amoenum Raf. 1.c., descr. (Grande gallane ou Chelone. Rob. Voy. Louis. 3:405. 1807); Am. Monthly Mag. Crit. Rev. 4:188. 1819, nom. Louisiana = Sesamum orientale Linn. (S. indicum Linn.

# MARTYNIACEAE

**DISTEIRA** Raf. Fl. Tellur. 4:68. 1836 [1838], descr.=Martynia Linn.

angulosa Raf. l.c., descr. (Martynia angulosa Lam.; M. diandra Glox.). Mexico.

MARTYNIA Linn.

\*rotundifolia Raf. Western Minerva 41. 1821, nom., iter. Fox, Science II. 12:213. 1900. North America.

# OROBANCHACEAE

CYPHANTHE Raf. Neogen. 3. 1825, nom. alt. Thalesia Raf. (Type Orobanche uniflora Linn.)=Orobanche Linn.

LEPTAMNIUM Raf. Am. Monthly Mag. Crit. Rev. 2:267. 1818, nom. (Orobanche virginiana Linn.); op. cit. 4:194. 1819, nom. (Epifagus Nutt.); Jour. Phys. Chim. Hist. Nat. 89: 259. 1819, nom. (Epifagus Nutt.); Med. Fl. 2:267. 1830, nom. = Epifagus Nutt. (1818), nom. conserv. (Leptamnium Def. 1918) Raf., 1818).

tvirginianum Raf. Med. Fl. 2:237. 1830, nom. (Orobanche virginiana Linn.; Epifagus [americanus Nutt.]). North America=Epifagus virginianus (Linn.) Barton.

LOXANTHES Raf. Neogen. 3. 1825, nom. = Aphyllon (Mitch.) Torr. & Gray (1848) = Orobanche Linn.

fasciculata Raf. ex Jacks\*. Ind. Kew. 2:121. 1894 (Oro-banche fasciculata Nutt.)=Aphyllon fasciculatum Torr. & Gray (1848) = Orobanche fasciculata Nutt. Central United States.

\*peduncularis Raf. Herb. Raf. 39. 1833, nom. ("Orobanche, P[ursh]." Missouri.

OROBANCHE Linn.

fragrans Raf. Am. Monthly Mag. Crit. Rev. 1:440. 1817, descr.; Fl. Ludovic. 169. 1817, nom. Sicily.

obtusata Raf. Il.cc., descr., nom. Sicily.

purpurea Raf. Car. Nuov. Gen. Sp. Sicil. 80. 1810, descr.;

Stat. Gen. Sicil. 28. 1810, nom.; Speech. Sci. 2:8. 1814, descr. Sicily. descr. Sicily.

rubra Raf. Chloris Aetn. 10. 1815, nom. Sicily.

\*POLYCLONOS Raf. Am. Monthly Mag. Crit. Rev. 4:194. 1819, sub Epifagus Nutt., nom. nov. Gymnocaulis Nutt. (1818), sect. Orobanche Linn. = Orobanche Linn. (Aphyllon (Aphyllon (Mitch.). Torr. & Gray, 1848).

THALESIA Raf. Am. Monthly Mag. Crit. Rev. 2:267. 1818, nom. (Orobanche uniflora Linn.); op. cit. 4:189, 194. 1819, nom. (Orobanche uniflora Linn.); Neogen. 3. 1825, nom. (Orobanche uniflora Linn.); Fl. Tellur. 1:16. 1836 [1837], nom. = Aphyllon (Mitch.) Torr. & Gray (1848) = Orobanche Linn.

uniflora Raf. Am. Monthly Mag. Crit. Rev. 4:194. 1819, nom. (Orobanche uniflora Linn.); Med. Fl. 2:267. 1830, nom. (Orobanche uniflora Linn.). Eastern North America Orobanche uniflora Linn. (Aphyllon uniflorum A. Gray; Thalesia uniflora Britton).

#### GESNERIACEAE

\*ALAGOPHYLA Raf. Fl. Tellur. 2:33. 1836 [1837], descr.= Gesneria Linn.

\*dasyanthes Raf. l.c., descr. (Gesneria allagophylla Mart.; Lindl. Bot. Reg. 21: t. 1767. 1835). Brazil. ALAGOPHYLLA Raf. ex Jacks\*. Ind. Kew. 1:70. 1893=praec.

dasyanthes Raf. ex Jacks\*. l.c.=praec.
ALMANA Raf. Fl. Tellur. 4:68. 1836 [1838], descr.=Sinningia

Nees 1825 (Ligeria Decne. 1848).

hirsuta Raf. 1.c., descr. (Gloxinia hirsuta Lindl. Bot. Reg. 12: t. 1004. 1826). Brazil=Ligeria hirsuta Decne.=Sinningia hirsuta (Lindl.) Nichols.

BACA Raf. Princ. Somiol. 25. 1814, nom., sphalm.; Fl. Tellur.

1:83. 1836 [1837], nom., sphalm.=Boea Commers. (1785).
\*CAONABO Turpin ex Raf. Specch. Sci. 1:194. 1814, nom.=
Vireya Raf. (1814)=Columnea Linn.
CHLETERUS Raf. Princ. Somiol. 25. 1814, nom. nov. Boea
Commers. ex Juss. (1789) [sphalm. Raf. "Baca"]=Boea

Commers. (1785).
\*CLETERUS Raf. Fl. Tellur. 1:83. 1836 [1837], nom. nov.
Boea Commers. ex Juss. (1789) [sphalm. Raf. "Baca"] praec.

COLUMNEA Linn.

repens Raf. ex Jacks\*. Ind. Kew. 1:587. 1893 ([Aponoa repens Raf.]; Columnea stellata Lour.). Indo-China (Annam)=? Limnophila chinensis (Osb.) Merr.; see Merrill, Trans. Am. Philos. Soc. II. 24(2):350. 1935 (Scrophulariaceae)

\*DAHLBERGIA Raf. Sylva Tellur. 71. 1838, nom. sub Hema-tophyla Raf.=Dalbergaria Tussac (1808)=Columnea Linn.

ERIPHIA sensu Raf. Sylva Tellur. 77. 1838, non P. Browne=

Besleria Linn.

lutea Raf. l.c., descr. (Besleria lutea Linn.). South America (Guiana)=Besleria lutea Linn.

pallida Raf. 1.c., descr. (Besleria lutea sensu Sw.). Jamaica=

Besleria lutea Linn. EUSYNETRA Raf. Fl. Tellur. 2:57. 1836 [1837], descr.=

Columnea Linn.

bicolor Raf. 1.c., descr. (Columnea hirsuta Sw.; Hook. Bot. Mag. 58: t. 3081. 1834; Achimenes I major P. Browne, Nat. Hist. Jam. 270. t. 30. f. 3. 1756). Jamaica = Columnea hirsuta Sw.

GLYCANTHES Raf. Sylva Tellur. 83. 1838, descr. = Columnea Linn.

scandens Raf. 1.c., descr. (Columnea scandens Linn.). West Indies. Guiana.

HEMATOPHYLA Raf. Sylva Tellur. 71. 1838, descr. (bergia Raf. = Dalbergaria Tussac) = Columnea Linn. 1838, descr. (Dahlvillosa Raf. Sylva Tellur. 71. 1838, descr. (Besleria sanguinea

Pers.). Haiti=Columnea coccinea (Pers.) Hanst.

LOPHALIX Raf. Sylva Tellur. 70. 1838, descr. (Crantzia Scop.)

= Alloplectus Mart. (1829), nom. conserv. (Crantzia Scop.,

1777; Lophia Desv., 1825).
bicolor Raf. l.c., descr. (Besleria cristata Linn.). West Indies
=Alloplectus cristatus (Linn.) Mart.

coccinea Raf. op. cit. 71, descr. (Besleria coccinea Aubl.).
Guiana=Alloplectus coccineus (Aubl.) Mart.
MEGAPLEILIS Raf. Fl. Tellur. 2:57. 1836 [1837], descr.=

Gesneria Linn.

\*bulbosa Raf. op. cit. 33, nom. sub Alagophyla Raf. = seq. tuberosa Raf. op. cit. 58, descr. (Gesneria bulbosa Ker-Gawl. Bot. Reg. 4: t. 343. 1819; Hook. Bot. Mag. 58: t. 3041. 1831). Brazil.

PETRAMNIA Raf. Fl. Tellur. 4:68. 1836 [1838], nom. (Type Craniolaria fruticosa Linn.)=Pentarhaphia Lindl. [Pentaraphia Lindl.] (1827).

STYROSINIA Raf. Fl. Tellur. 2:95. 1836 [1837], descr.=

Gesneria Linn.

Gosheria Billi.

coccinea Raf. op. cit. 96, descr. (Gesneria aggregata Ker-Gawl. Bot. Reg. 4: t. 329. 1818; Hook. Bot. Mag. 54: t. 2725. 1827; Gesneria pendulina Lindl. Bot. Reg. 12: t. 1032. 1827). Brazil.

TULISMA Raf. Fl. Tellur. 2:98. 1836 [1837], descr.=Gesneria

verticillata Raf. 1.c., descr. (Gesneria verticillata Hook. Bot. Mag. 54: t. 2776. 1827). Brazil = Gesneria maculata Mart.

VIREYA Raf. Specch. Sci. 1:194. 1819, descr.; Précis Découv. Somiol. 1814, nom. (p. 4 of cover); Jour. Bot. (Desv.) 4: 277 (err. 177). 1814, nom.=Columnea Linn.

sanguinolenta Raf. l.c., descr. Santo Domingo=Columnea

sanguinea (Pers.) Hanst.

# **LENTIBULARIACEAE**

ASKOFAKE Raf. Fl. Tellur. 4:108. 1836 [1838], descr.= Utricularia Linn.

recurva Raf. l.c., descr. (Utricularia recurva Lour.). Indo-China (Annam)=Utricularia bifida Linn.; see Merrill, Trans. Am. Philos. Soc. II. 24(2): 356. 1935.

BUCRANION Raf. Aut. Bot. 155, nom., 159, descr. 1840; Pennell, Bull. Torr. Bot. Club 48:95. 1921, nom.=Utricularia

\*capense Raf. op. cit. 159, nom. nov. Antirrhinum aphyllum Thunb.=Utricularia capensis (Thunb.) Spreng. Africa.

spicatum Raf. l.c., descr.; Pennell, l.c., nom. Africa? COSMIZA Raf. Fl. Tellur. 4:110. 1836 [1838], descr.=Polypompholyx Lehm. (1844), nom. conserv. (Cosmiza Raf., 1838).

coccinea Raf. 1.c., descr. (Utricularia multifida Sm.). Australia=Polypompholyx multifida (Sm.) F. Muell.

ENSKIDE Raf. Fl. Tellur. 4:109. 1836 [1838], descr.=Utricularia Linn.

barbata Raf. 1.c., descr. (Utricularia [barbata R. Br.]). Australia.

chrysantha Raf. 1.c., descr. (Utricularia [chrysantha R. Br.]). Australia.

flava Raf. 1.c., descr. (Utricularia [flava R. Br.]). Australia. HAMULIA Raf. Fl. Tellur. 4:109. 1836 [1838], descr.=Utri-

cularia Linn.
alba Raf. l.c., nom. (Utricularia inflexa Forsk.). Arabia=
U. stellaris Linn. f.

flava Raf. 1.c., nom., nota (Utricularia stellaris Linn. f.). Asia. ISOLOBA Raf. Fl. Tellur. 4:58. 1836 [1838], descr.=Pinguicula Linn.

elatior Raf. op. cit. 59, descr. (Pinguicula elatior Michx.).

North America=P. caerulea Walt. lusitanica Raf. ex Jacks\*. Ind. Kew. 1:1238. 1893 (Pinguicula lusitanica Linn.). Western Europe. lutea Raf. Fl. Tellur. 1.c., descr. (Pinguicula lutea Walt.).

Carolina, Florida.
pumila Raf. l.c., descr. (Pinguicula pumila Michx.). Carolina, Florida.

recurva Raf. l.c., descr. (Pinguicula edentula Hook.). North America=P. lutea Walt.

LENTIBULARIA Adans.; Raf. Fl. Tellur. 4:108. 1836 [1838], descr.=Utricularia Linn.

minor Raf. 1.c., nom. (Utricularia minor Linn.). Eurasia, North America.

LEPIACTIS Raf. Fl. Tellur. 4:109. 1836 [1838], descr., non Raf. op. cit. 2:43. 1836 [1837] = Utricularia Linn. stellaris Raf. l.c., descr. (Utricularis stellaris Linn. f.). India.

MEGOPIZA Raf. ex Jacks\*. Ind. Kew. 2:186. 1894, sphalm.= Megozipa Raf.=Utricularia Linn.

fornicata Raf. ex Jacks\*. l.c.=Megozipa fornicata Raf. (Utricularia fornicata Le Conte). Eastern North America=U. gibbosa Linn.

integra Raf. ex Jacks\*. l.c.=Megozipa integra Raf. (Utricularia integra Le Conte). Eastern North America=U. biflora Lam.

longirostris Raf. ex Jacks\*. 1.c. (Utricularia longirostris Le

Conte). Eastern North America = U. fibrosa Walt.

macrorhiza Raf. ex Jacks\*. l.c. (Utricularia macrorhiza Le
Conte). Southeastern United States = U. foliosa Linn.

\*MEGOZIPA Raf. Fl. Tellur. 4:110. 1836 [1838], descr.=Utricularia Linn.

\*fornicata Raf. 1.c., nom. (Utricularia fornicata Le Conte). Eastern North America = U. gibba Linn. \*integra Raf. l.c., nom. (Utricularia integra Le Conte). East-

ern North America=U. biflora Lam.

\*longirostris Raf. l.c., nom. (Utricularia longisrostris Le Conte). Eastern North America = U. fibrosa Walt. \*macrorhiza Raf. 1.c., nom. (Utricularia macrorhiza Le Conte).

Southeastern United States=U. foliosa Linn.

MEIONULA Raf. Fl. Tellur. 4:108. 1836 [1838], descr.=Utricularia Linn.

parviflora Raf. 1.c., descr. (Utricularia minutissima Vahl). Malacca.

MELONEURA Raf. Fl. Tellur. 4:109. 1836 [1838], descr.= Utricularia Linn.

purpurea Raf. l.c., descr. (Utricularia striatula Sm.). Ceylon. NELIPUS Raf. Fl. Tellur. 4:109. 1836 [1838], descr.=Utricularia Linn.

bifida Raf. 1.c., nom. (Utricularia bifida Linn.). India.

biloba Raf. l.c., nom. (Utricularia biloba R. Br.). Australia. limosa Raf. l.c., nom. (Utricularia limosa R. Br.). Australia. spiralis Raf. 1.c., nom. (Utricularia spiralis Sm.). Tropical Africa.

PERSONULA Raf. Fl. Tellur. 4:110. 1836 [1838], descr.=Utricularia Linn.

grandiflora Raf. 1.c., nom. (Utricularia personata Le Conte). Eastern North America = U. cornuta Michx. (Stomoisia cornuta Raf.).

PLECTOMA Raf. Fl. Tellur. 4:110. 1836 [1838], descr.=Utricularia Linn.

inflata Raf. 1.c., nom. (Utricularia inflata Walt., U. ceratophylla Michx.). Eastern North America = U. inflata Walt. stellata Raf. 1.c., nom. (Utricularia inflata Walt., U. ceratophylla Michx.). Eastern North America=U. inflata Walt.

PLESISA Raf. Fl. Tellur. 4:110. 1836 [1838], descr.=Utri-

cularia Linn.

bipartita Raf. 1.c., nom. (Utricularia bipartita Ell.). Southeastern United States.

**STOMOISIA** Raf. Fl. Tellur. **4**:108. 1836 [1838], descr.=Utricularia Linn.

cornuta Raf. 1.c., nom. (Utricularia cornuta Michx.). Eastern North America.

TRILOBULINA Raf. Fl. Tellur. 4:110. 1836 [1838], descr.= Utricularia Linn.

crenata Raf. 1.c., nom. (Utricularia crenata Vahl). Peru= Utricularia aphylla Ruiz & Pavon.

fibrosa Raf. 1.c., nom. (Utricularia fibrosa Walt.). Eastern United States.

striata Raf. 1.c., nom. (Utricularia striata Le Conte). Eastern

United States=Utricularia fibrosa Walt.

TRIXAPIAS Raf. Fl. Tellur. 4:108. 1836 [1838], descr.= Utricularia Linn.

capillacea Raf. 1.c., nom. (Utricularia capillacea Willd.). India.

UTRICULARIA Linn.

\*aphylla Raf. Med. Repos. II. 5:353. 1808, nom.; Tour. Bot. (Paris) 2:173. 1809, nom. Central Atlantic United \*pumila Raf. 11.cc., nom.; Herb. Raf. 69. 1833, nom. Long

Island, New Jersey, Chesapeake Bay. \*ramosa Raf. Med. Repos. et Jour. Bot. Il.cc., nom. Long

Island, New Jersey, Chesapeake Bay.

VESICULINA Raf. Fl. Tellur. 4:109. 1836 [1838], descr.= Utricularia Linn.

albiflora Raf. 1.c., nom. (Utricularia albiflora R. Br.). Aus-

compressa Raf. 1.c., nom. (Utricularia compressa R. Br.). Aus-

gibba Raf. 1.c., nom. (Utricularia gibba Linn.). Eastern North America.

graminifolia Raf. 1.c., nom. (Utricularia graminifolia R. Br.). Australia.

purpurea Raf. 1.c., nom. (Utricularia purpurea Walt.). Eastern North America.

pygmea Raf. 1.c., nom. (Utricularia pygmaea R. Br.). Australia.

saccata Raf. 1.c., nom. (Utricularia saccata Le Conte). Southeastern Uinted States = Utricularia purpurea Walt. (Vesiculina purpurea Raf.).

setacea Raf. 1.c., nom. (Utricularia setacea Michx.). Eastern North America = Utricularia subulata Linn.

tenella Raf. 1.c., nom. (Utricularia tenella R. Br.). Australia =Polypompholyx tenella (R. Br.) Lehm.

\*XANANTHES Raf. Fl. Tellur. 4:108. 1836 [1838], nom. alt. Lentibularia Adans.=Utricularia Linn.

## ACANTHACEAE

ACANTHODUS Raf. Princ. Somiol. 26. 1814, nom. nov. Acanthus Linn. = seq.

ACANTHUS Linn.

rubens Raf. Fl. Ludovic. 36. 1817, descr. (Acanthus mollis sensu Rob. Voy. Louis. 3:380. 1807); New Fl. N. Am. 1:46. 1836, descr. Louisiana. An Labiatae?

ADATODA Raf. Fl. Tellur. 4:60. 1836 [1838], descr.=Adha-

toda Medic. (1790).

arborea Raf. op. cit. 61, nom., sphalm. "arborca" (Justicia adhatoda Linn.). India=Adhatoda vasica Nees.

betonica Raf. 1.c., nom. (Justicia betonica Linn.). India. repens Raf. l.c., nom. (Justicia repens Linn.). India=Rungia

repens (Linn.) Nees.

ADELODA Raf. Fl. Tellur. 4:61. 1836 [1838], descr.=Dicliptera Juss. (1807), nom. conserv. (Diapedium Koenig, 1805). \*brachiata Raf. Aut. Bot. 32. 1840, descr. (Justicia brachiata Pursh). Florida = Dicliptera brachiata (Pursh) Spreng.

(Diapedium brachiatum O. Kuntze).
integra Raf. Fl. Tellur. 1.c., descr. ([Folium tinctorium]
Rumph. Herb. Amb. 6:51. t. 22. f. 1. 1750). Moluccas=
Peristrophe bivalvis (Linn.) Merr.; see Merrill, Interp.

Rumph. Herb. Amb. 476. 1917 (P. tinctoria Nees). serrata Raf. I.c., descr. (Adel-Odagam Rheede, Hort. Malabar.

serrata Rat. I.c., descr. (Adel-Odagam Rheede, Hort. Maladar. 9:81. t. 43. 1689). India = Peristrophe sp.
\*verticillata Raf. Aut. Bot. 32. 1840, descr. Arkansas, Texas.
AMATHEA Raf. Fl. Tellur. 4:65. 1836 [1838], descr. = Roslinia Neck. 1790 = Aphelandra R. Br. (1810).
pulchra Raf. I.c., descr. (Justicia pulcherrima Jacq.; Sel. Stirp. Am. Hist. Pict. t. 259. f. 1. 1780). Tropical America = Aphelandra pulcherrima (Jacq.) H.B.K.
ANTHEILEMA Raf. Fl. Tellur. 4:66. 1836 [1838], descr. = Dioteracanthus Nees (1832) = Ruellia Linn.

Dipteracanthus Nees (1832)=Ruellia Linn. imbricata Raf. ex Jacks\*. Ind. Kew. 1:143. 1893 (Ruellia imbricata Forsk.). Arabia=Phaylopsis imbricata (Forsk.) Sweet: Blatter.

paniculata Raf. Fl. Tellur. 1.c., nom. (Ruellia paniculata Linn.; Browallia alienata Linn.). West Indies=Dipteracanthus paniculatus (Linn.) Nees=Ruellia paniculata Linn.
\*BLEXUM Raf. Fl. Tellur. 4:65. 1836 [1838], nom. sub Ruellia Linn., sphalm.=Blechum P. Br. (1756).

\*BUELLIA Raf. Sylva Tellur. 4:66. 1836 [1838], nom. sub

Hygrophila R. Br., sphalm.=Ruellia Linn.

CALASIAS Raf. Fl. Tellur. 4:64. 1836 [1838], descr.=Anisotes Nees (1847), nom. conserv. (Calasias Raf., 1838).

bracteata Raf. 1.c., descr. (Dianthera trisulca Forsk.; Justicia biflora Lam.). Arabia=Anisotes trisulcus (Forsk.) Nees.

#CANIRAMA Raf. Fl. Tellur. 4:65. 1836 [1838], nom., subgen. Ruellia Linn. (Type Justicia gangetica Linn.)=Asystasia Blume (1826).

CARIMA Raf. Fl. Tellur. 4:62 (err. 52). 1836 [1838], descr.= Adhatoda Medic. (1790).

sulcata Raf. 1.c., nom. (Justicia sulcata Vahl; Dianthera sulcata Vahl). Arabia=Adhatoda sulcata (Vahl) Nees. CRATEOLA Raf. Fl. Tellur. 4:64. 1836 [1838], descr. = An-

thacanthus Nees. (1847).
parviflora Raf. ex Jacks\*. Ind. Kew. 1:637. 1893 (Justicia parviflora Ortega). Mexico.

vincoides Raf. ex Jacks\*. 1.c. (Justicia vincoides Lam.). Madagascar=Anthacanthus vincoides (Lam.) Nees.

CYMBURUS sensu Raf. Fl. Tellur. 2:103. 1836 [1837], descr., non Salisb. (1806)=Elytraria Michx. (1803), nom. conserv. (Tubiflora J. F. Gmel., 1791).

squamosus Raf. Fl. Tellur. 2:103. 1836 [1837], descr. (Verbena squamosa Jacq.; Stachytarpheta squamosa Vahl).

South America = Elytraria squamosa (Jacq.) Lindau (E. tridentata Vahl).

DIANTHERA Linn. = Justicia Linn.

\*ensiformis Raf. Aut. Bot. 30. 1840, descr. (Justicia ensiformis Ell.; J. pedunculosa Michx.). New England to Carolina and Missouri = Dianthera ensiformis Walt. = D. americana Linn. =Justicia americana (Linn.) Vahl.

\*formosa Raf. op. cit. 29, descr. (Justicia formosa [Donn]) South America = Beloperone formosa Fenzl.

\*heterophyla Raf. op. cit. 30, descr. Carolina to Florida. \*humilis Raf. Fl. Tellur. 4:52 1836 [1838], nom.; Aut. Bot. l.c., descr. (Justicia humilis Michx.). Alabama to Louisiana (Dianthera ovata Walt.; Justicia \*ovata "Walt."; Small, Man. Southeast Fl. 1231. 1933, non E. Mey., nec Dietr.)=Dianthera ovata Walt.
\*linearifolia Raf. Aut. Bot. 29. 1840, descr. (Justicio

1840, descr. (Justicia linearifolia Lam.). Carolina to Florida = Dianthera ameri-

cana Linn.

\*longifolia Raf. op. cit. 30, descr. Susquehanna River.

\*mollis Raf. op. cit. 31, descr. (Justicia lithospermifolia Jacq.). South America=Adhatoda lithospermifolia (Jacq.) Nees.

\*pedunculosa Raf. F1. Tellur. 4:52. 1836 [1838], nom. [Justicia pedunculosa Michx.]. Eastern North America=Justicia americana Linn.

\*repanda Raf. Aut. Bot. 30. 1840, descr. Arkansas

DIMANISA Raf. Fl. Tellur. 2:83. 1836 [1837], descr.= Dianthera Linn.=Justicia Linn.

latifolia Raf. op. cit. 84, descr. (Justicia nodosa Hook. Bot. Mag. 56: t. 2914. 1829). Brazil=Dianthera nodosa (Hook.) Benth. & Hook. f.=Justicia nodosa Hook. oblongata Raf. l.c., descr. (Justicia oblongata Link & Otto).

Brazil=Beloperone plumbaginifolia (Jacq.) Nees.
\*DOTHICROA Raf. Fl. Tellur. 4:63. 1836 [1838], descr.=

Phlogacanthus Nees (1832).

\*guttata Raf. 1.c., descr. (Justicia guttata Wall.; Lindl. Bot. Reg. 16: t. 1334. 1830). India=Phlogacanthus guttatus

(Wall.) Nees. †EBERLEA Riddell ex Raf. Aut. Bot. 34. 1840, nom.; Nees in

DC. Prodr. 11:85. 1847, nom. in syn.=Hygrophila Linn.
\*geminata Raf. Aut. Bot. 34. 1840, descr. sub E. glomerata
Riddell (Justicia chelionida Raf. Fl. Ludovic. 39. 1817).
Louisiana=? Justicia humilis Michx. (Dianthera ovata Walt.).

†glomerata Riddell ex Raf. 1.c., descr.; Nees in DC. Prodr. 11:86. 1847, nom. in syn. Louisiana=Hygrophila lacustris (Schlecht.) Nees.

#ECBOLIA Raf. Fl. Tellur. 4:60. 1836 [1838], descr. subgen. Justicia Linn. (Types Justicia ciliata Pers.; J. ecbolium Linn.) = Ecbolium Kurz (1871).

EMULARIA Raf. Fl. Tellur. 4:63. 1836 [1838], nom., nota=

Justicia Linn. ENDOMELAS Raf. Fl. Tellur. 4:67. 1836 [1837], descr.=
Thunbergia Retz. (1776), non Moutin, 1773, nom. conserv.
(Flemingia Roxb., 1803, non Roxb. 1812; Diplocalymma Spreng., 1822).

alata Raf. 1.c., descr. (Thunbergia alata Boj. ex Sims, Bot. Mag. 52: t. 2591. 1825). Zanzibar.

ENSLEMIA Raf. Fl. Ludovic. 35. 1817, descr. (non Nutt. 1818);
Am. Monthly Mag. Crit. Rev. 4:188. 1819, nom.; New Fl.
N. Am. 1:7. 1836, nom.=Nelensia Poir. (1823)=Ruellia Linn.

bibracteata Raf. Fl. Ludovic. I.c., descr. (Polygala Rob. Voy Louis. 3:378. 1807). Louisiana = Nelensia bibracteata (Raf.)

Poir.=Ruellia strepens Linn. ETHESIA Raf. Fl. Tellur. 4:63. 1836 [1838], descr.=Jacobinia

Moric. (1846), nom. conserv. (Ethesia Raf., 1838).

carnea Raf. op. cit. 64, descr. (Justicia carnea Lindl. Bot. Reg. 17: t. 1397. 1831). Brazil=Jacobinia carnea (Lindl.) Nichols. (J. magnifica Lindau).

#EUMALA Raf. Aut. Bot. 31. 1840, descr., sub Dianthera mol-

lis Raf., subgen. Dianthera Linn.=Justicia Linn.

#EUPODANTHES Raf. Fl. Tellur. 4:62 (err. 52). 1836 [1838], descr., subgen. Dianthera Linn.; Aut. Bot. 30. 1840, nom.= Tusticia Linn.

FIMBROLINA Raf. Sylva Tellur. 71. 1838, descr.=Besleria Linn.

incarnata Raf. 1.c., descr. (Besleria incarnata Aubl.). Guiana. FLAVICOMA Raf. Fl. Tellur. 4:63. 1836 [1838], descr.= Schaueria Nees (1838), nom. conserv. (Flavicoma Raf.,

capitata Raf. l.c., descr. (Justicia flavicoma Lindl. Bot. Reg. 12: t. 1027. 1826). Brazil=Schaueria flavicoma (Lindl.)

N. E. Br.

paniculata Raf. l.c., descr. (Justicia calycotricha sensu Hook.

Exot. Fl. 3: t. 212. 1827; Hook. Bot. Mag. 2: t. 2816. 1828,
non Link & Otto). Brazil—Schaueria flavicoma (Lindl.) N. E. Br. Gard. Chron. II. 19:14. 1883.

Rumph., 1743), descr., subgen. Justicia Linn. (Type Justicia gendarussa Burm. f.) = Gendarussa Nees (1832) = Justicia Linn. #GANDARUSA Raf. Fl. Tellur. 4:60. 1836 [1838] (Gendarussa

\*GERARDIA (Plumier) Raf. Fl. Tellur. 4:67. 1836 [1838], descr. 40 = Stenandrium Nees (1836).

40 Gerardia Linn. was, in a strict sense, based on Gerardia humilis, bugulae foliis, asphodeli radice Plumier, Gen. 31. t. 12. 1703, which is the acanthaceous Stenandrium Nees (1836). Small, Man. Southeast. Fl. 1229. 1833, retained the Linnaean name for the acanthaceous group. See Pennell's discussion, †rupestris Raf. 1.c., nom. (Ruellia rupestris Sw.), non Raf. 1832. West Indies = Stenandrium rupestre Nees = S. tuberosum (Linn.) Urb.

[In Ind. †scabrosa Raf. l.c., nom. (Ruellia scabrosa Sw.). [In Ind. Kew. 1:1022. 1893 sub Gerardia Linn. (Scroph.)]. West Indies=Stenandrium scabrosum (Sw.) Nees.

GEUNSIA Neck.; Raf. Fl. Tellur. 4:61. 1836 [1838], descr. = Hypoestes Soland. (1810).

†fastuosa Raf. l.c., descr. 41 (Justicia fastuosa Linn.; J. paniculata Forsk.). India, Arabia Hypoestes fastuosa (Linn.) R. Br. et H. forskalei R. Br.

#HEMELOSIA Raf. Fl. Tellur. 4:66. 1836 [1838], descr., subgen. Ruellia Linn. (Type Ruellia strepens Linn.)= Ruellia Linn.

#HIRSELINA Raf. Fl. Tellur. 4:60. 1836 [1838], descr., subgen. Justicia Linn. (Type Justicia paniculata Burm. f.) = Andrographis Wall. (1832).

HYGROPHILA R. Brown.

balsamica Raf. Fl. Tellur. 4:66. 1836 [1838], nom. [Ruellia balsamica Linn. f.]. India=Cardanthera balsamica (Linn.) Benth.

\*hypericifolia Raf. Aut. Bot. 33. 1840, descr. Alabama to Florida.

malabarica Raf. Fl. Tellur. 4:66. 1836 [1838], nom. (Ruellia ringens Linn.). India=Hygrophila ringens (Linn.) R. Br. (H. angustifolia R. Br.).

\*ocymoides Raf. 1.c., nom. (Ruellia ocymoides Cav. Ic. 5:

9. t. 416. 1801). Mexico.

9. t. 416. 1801). Mexico.

oblongifolia Raf. 1.c., nom. (Ruellia oblongifolia Michx.);
Aut. Bot. 32. 1840, nom. (Ruellia oblongifolia Michx.).

Southeastern United States=Dyschoriste oblongifolia (Michx.) O. Kuntze (Calophanes oblongifolius D. Don).

\*pilosa Raf. Aut. Bot. 32. 1840, descr. Kentucky, Alabama.

IDANTHISA Raf. Aut. Bot. 31. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:92. 1921, nom.=Anisacanthus Nees (1842).

ligustrina Raf. 1.c., descr. (Justicia superba [hort.]); Pennell, l.c., nom. "probably of E. Indies"=Anisacanthus virgularis (Salisb.) Nees.

INTRUSARIA Raf. Fl. Tellur. 4:66. 1836 [1838], descr.= Asystasia Blume (1826)

bicolor Raf. 1.c., nom. (Ruellia intrusa Forsk.). Arabia = Asystasia gangetica (Linn.) T. Anders. (A. coromandeliana Nees).

JANASIA Raf. Fl. Tellur. 4:63. 1836 [1838], descr.=Phloga-

canthus Nees (1832).

rosea Raf. l.c., descr. (Justicia quadrangularis Hook.; Lindl.
Bot. Reg. 16: t. 1340. 1830). India=Phlogacanthus asperulus Nees.

rubra Raf. l.c., descr. (Justicia quadrangularis Hook. Bot. Mag. 55: t. 2845. 1828). "Madagascar" [or Mauritius] =

Phlogacanthus asperulus Nees.

JUSTICIA Linn. chelionida Raf. Fl. Ludovic. 39. 1817, descr. (Amethysteo Rob. Voy. Louis. 3:386. 1807). Louisiana=? Justicia humilis Michx. (Dianthera ovata Walt.).

\*dubia Raf. Atl. Jour. 1:146. 1832, nom. (Justicia sp. Torr. Ann. Lyc. Nat. Hist. New York 2:235. 1827, sub J. brachiata Pursh). Arkansas River?

\*superba Raf. Aut. Bot. 31. 1840, nom. sub Idanthisa lign-strina Raf. Prob.=Justicia superba hort. ex Nees in DC. Prodr. 11:445. 1847=Anisacanthus virgularis (Salisb.) Nees, I.c. Mexico.

KUNIRIA Raf. Fl. Teliur. 4:61. 1836 [1838], descr.=Dicliptera Juss. (1807), nom. conserv. (Diapedium Koenig, 1805). falcata Raf. l.c., nom. (Justicia falcata Lam.). Mascarene

Islands=Dicliptera falcata (Lam.) Poir (D. laevigata Juss.). malabarica Raf. 1.c., nom. (Justicia malabarica Ait.). Indo-Malaysia=Peristrophe bicalyculata (Retz.) Nees.

#LARNAPLAGIS Raf. Aut. Bot. 29. 1840, sub Dianthera for-

mosa Raf., descr., subgen. Dianthera Linn. = Justicia Linn. #Loncotoma Raf. Fl. Tellur. 4:60. 1836 [1838], descr., subgen. Justicia Linn. (Type Justicia carthaginensis Jacq.) = Beloperone Nees (1832).

Acad. Nat. Sci. Phila. Monog. 1:419. 1935, who retains Gerardia (Linnaeus, pro parte) Bentham for the large scrophulariaceous group. The genotype of this is Gerardia purpurea Linn.
41 In Index Kewensis 1:1026. 1895, erroneously entered under

the verbenaceous genus Geunsia Blume.

LUSTRINIA Raf. Fl. Tellur. 4:62 (err. 52). 1836 [1838], descr.

=Justicia Linn. (Dianthera Linn.).

geniculata Raf. l.c., descr. (Justicia geniculata Sims Bot. Mag. 51: t. 2487. 1824). West Indies=Justicia secunda Vahl (Dianthera secunda Griseb.). MARAMA Raf. Fl. Tellur. 4:62 (err. 52). 1836 [1838], descr.=

Graptophyllum Nees (1832).

picta Raf. I.c., descr. (Justicia picta Linn.). India=Grapto-

phyllum pictum (Linn.) Griff.

MEIOSPERMA Raf. Fl. Tellur. 4:64. 1836 [1838], descr.= Justicia Linn.

debilis Raf. ex Jacks\*. Ind. Kew. 2:186. 1894 (Dianthera

debilis Forsk.). Arabia=Justicia debilis (Forsk.) Lam.

OPLONIA Raf. Fl. Tellur. 4:64. 1836 [1838], descr.=Anthacanthus Nees (1847).

spinosa Raf. op. cit. 65, descr. (Justicia spinosa Jacq.). South America = Anthacanthus spinosus (Linn.) Nees.

#OSMULARIA Raf. Fl. Tellur. 4:62 (err. 52). 1836 [1838], descr., subgen. Dianthera Linn. (Type Dianthera odora Forsk.)=Adhatoda Medic. (1790).
#OXIMULA Raf. Fl. Tellur. 4:62 (err. 52). 1836 [1838], descr.,

subgen. Dianthera Linn. (Type Dianthera eustachiana J.

F. Gmel.)=Justicia Linn.

PANEMATA Raf. Fl. Tellur. 4:64. 1836 [1838], descr.= Gymnostachyum Nees (1832).

zeylonica Raf. 1.c., descr. (Justicia sanguinolenta Vahl). Ceylon=Gymnostachyum sanguinolentum (Vahl) T. Anders. PETALANTHERA Raf. Fl. Tellur. 2:100. 1836 [1837], descr.,

non Nutt. (1834), nec Nees (1833) = Adhatoda Medic. (1790).

punctata Raf. l.c., descr. (Justicia ventricosa Wall.; Hook. Bot. Mag. 54: t. 2766. 1827). China=Adhatoda ventricosa (Wall.) Nees.

PLEUREMIDIS Raf. Fl. Tellur. 4:67. 1836 [1838], descr.=

Thunbergia Retz. (1776), non Moutin, 1773, nom. conserv. grandiflora Raf. 1c., descr. (Thunbergia grandiflora Roxb.; Ker-Gawl. Bot. Reg. 6: t. 495. 1820). India. #PULCOLIA Raf. Fl. Tellur. 4:60. 1836 [1838], descr. subgen. Justicia Linn. (Type Justicia nasuta Linn.)=Rhina-

canthus Nees (1832).

RODATIA Raf. Aut. Bot. 31. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:92. 1921, nom. Ex descr.=Beloperone Nees (1832).

reticulata Raf. 1.c., descr. (Justicia formosa auct.); Pennell, 1.c., nom. South America.

RUELLIA Linn.

oblongifolia Raf. ex Nees in DC. Prodr. 11:123. 1847, nom. in syn.=Dipteracanthus ciliosus (Pursh) Nees, var. hybridus Nees. Southeastern United States.

SARCANTHERA Raf. Fl. Tellur. 4:64. 1836 [1838], descr.=

Gymnostachyum Nees (1832).

venusta Raf. I.c., descr. (Justicia venusta Wall.; Lindl. Bot. Reg. 16: t. 1380. 1831). Bengal=Gymnostachyum venustum (Wall.) T. Anders.

SENKEBERGIA Neck.; Raf. Sylva Tellur. 70. 1838, descr.= Mendoncia Vell. (1788).

debilis Raf. l.c., nom. (Besleria bivalis Linn. f.) Surinam = Picria surinamensis Spreng. (1826) = Mendoncia bivalvis (Linn. f.) Merr., Jour. Arnold Arb. 29:213. 1948 (Mendoncia perrottetiana Nees, 1847).

STETHOMA Raf. Fl. Tellur. 4:61. 1836 [1838], descr. (Psacadocalymma Bremek., 1948). Justicia Linn.

pectoralis Raf. l.c., descr. (Justicia pectoralis Jacq. Sel. Stirp. Am. 3. t. 3. 1763; Ker-Gawl. Bot. Reg. 10: t. 796. 1824). West Indies (*Psacadocalymma pectorale* Bremek. Verh. Nederl. Akad. Wetensch. Afd. Natuurk. Tweede Sect. **45**(2):55. 1948).

STREPSIPHUS Raf. Fl. Tellur. 2:91. 1836 [1837], descr.=

Peristrophe Nees (1832).

speciosus Raf. I.c., descr. (Justicia speciosa Roxb.; Hook.

Bot. Mag. 54: t. 2722. 1827). Bengal=Peristrophe speciosa (Roxb.) Nees.

TRIXANTHERA Raf. Sylva Tellur. 146. 1838, descr.=Trichanthera H.B.K. (1817).

angularis Raf. 1.c., descr. (Ruellia gigantea Humb. & Bonpl.). South America = Trichanthera gigantea Humb. & Bonpl. UPUDALIA Raf. Fl. Tellur. 4:66. 1836 [1838], descr. = Daedala-

canthus T. Anders. (1864). pulchella Raf. l.c., nom., nota (Ruellia varians Vent. Jard. Cels. 46. t. 46. 1800; Eranthemum pulchellum Andr. Bot. Repos. 2: t. 88. 1800). India=Daedalacanthus varians (Vent.) Voss (D. nervosus T. Anders.).

URANTHERA Raf. Fl. Tellur. 4:62. 1836 [1838], descr., subgen. Dianthera Linn.; Aut. Bot. 31. 1840, nom. (Type, Dianthera secundiflora Ruiz & Pavon)=Justicia Linn.

XERALIS Raf. Sylva Tellur. 82. 1838, nom. nov. provis. Charachera Forsk., sub. Batindum jasmineum Raf.=Charachera Forsk. (1775).

ZONABLEPHIS Raf. Sylva Tellur, 143, 1838, descr. = Acanthus Linn.

polistachys Raf. op. cit. 144, descr. (Acanthus polystachyus Delile in Caill. Voy. Méroé 4:362. t. 62. fig. 2. 1826). Tropical Africa.

# MYOPORACEAE

BATINDUM Raf. Sylva Tellur. 81. 1838, descr. = Oftia Adans. (1763).

jasmineum Raf. op. cit. 82, descr. (Lantana africana Linn.). South Africa = Oftia africana (Linn.) Bocq.

### PHRYMACEAE

PHRYMA Linn.

media Raf. New Fl. N. Am. 2:37. 1836 [1837], descr. Kentucky=Phryma leptostachya Linn.

parvifolia Raf. op. cit. 38, descr. Alleghany Mountains= Phryma leptostachya Linn.

pubescens Raf. 1.c., descr. Alleghany Mountains=Phryma leptostachya Linn.

### PLANTAGINACEAE

LITTORELLA Berg.

flexuosa Raf. New Fl. N. Am. 4:12. 1836 [1838], descr.; Aut. Bot. 10. 1840, nom. Alabama, Arkansas=Plantago sp. PLANTAGO Linn.

accedens Raf. Fl. Ludovic. 33. 1817, descr. (Plantain 4, Rob.

Voy. Louis. 3:375. 1807). Louisiana. albifilora Raf. New Fl. N. Am. 4:11. 1836 [1838], descr. Western Kentucky and Tennessee.

amblodes Raf. op. cit. 12, descr. Arkansas and Yazoo Rivers. atrofusca Raf. Atl. Jour. 1:150. 1832, descr.; Herb. Raf. 61. 1833, nom.; New Fl. N. Am. 4:11, 12. 1836 [1838], nom. Western Kentucky and southern Illinois. \*balduini Raf. New Fl. N. Am. 4:12. 1836 [1838], nom.

\*brevifolia Raf. 1.c., nom.

\*brevifolia Raf. l.c., nom.

\*breviscapis Raf. l.c., nom.

compressa Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818, nom.; M'Murtrie, Sketch, Louisv. 223. 1819, nom.; First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom.; New Fl. N. America 4:12. 1836 [1838], nom. Kentucky.

\*crassifolia Raf. New Fl. N. Am. 4:12. 1836 [1838], nom.

†dasyura Raf. Am. Monthly Mag. Crit. Rev. 4:191. 1819, nom., nota (P. gnaphaloides Nutt.); First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom. nov. P. lagopus sensu Pursh; Herb. Raf. 39. 1833. nom. North America=P. purshii Herb. Raf. 39. 1833, nom. North America=P. purshii Roem. & Schultes.

\*elliptica Raf. Herb. Raf. 52. 1833, nom.; New Fl. N. Am.

\*eliptica Raf. Fierb. Raf. 52. 1833, nom.; New Fl. N. Ani.
4:12. 1836 [1838], nom. Rocky Mountains or Oregon.
\*eriorhiza Raf. Herb. Raf. 67. 1833, nom.; New Fl. N. Am.
4:12. 1836 [1838], nom. Cumberland Mountains.
gibbosa Raf. Am. Monthly Mag. Crit. Rev. 2:344. 1818,
nom. nov. provis. P. maritima sensu Bigel. Eastern North
America P. oliganthos Roem. & Schultes; see Fernald,
Phodos 27:03. 102. 1025 Rhodora 27:93, 102. 1925.

\*glauca Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824,

nom. Kentucky.

globosa Raf. New Fl. N. Am. 4:11. 1836 [1838], descr. Southern New Jersey to Florida. gonophylla Raf. First Cat. Bot. Gard. Transylv. Univ. 15. Raf. 61. 1833, nom. (gonophyla); New Fl. N. Am. 4:12. 1836 [1838], nom. (gonophyla). Kentucky, Ohio, Illinois. linearis Raf. New Fl. N. Am. 4:11. 1836 [1838], descr.

Florida.

\*longipes Raf. op. cit. 12, nom.
ludoviciana Raf. Fl. Ludovic. 33. 1817, descr. (Plantago virginica sensu Rob. Voy. Louis. 2:375. 1807). Lousiana. multinervis Raf. New Fl. N. Am. 4:10. 1836 [1838], descr.

\*peregrina Raf. 1.c., nom. \*pubescens Raf. Herb. Raf. 52. 1833, nom. Rocky Mountains or Oregon.

\*pycnanthes Raf. New Fl. N. Am. 1.c., nom. \*repanda Raf. New Fl. N. Am. 4:12. 1836 [1838], nom.

\*riparia Raf. l.c., nom.
\*rotundifolia Raf. l.c., nom.

\*serotina Raf. First Cat. Bot. Gard. Transyl. Univ. 15. 1824,

nom. Kentucky. \*serpentaria Raf. New Fl. N. Am. 4:12. 1836 [1838], nom. texensis Raf. op. cit. 11, descr. Texas and Arkansas.

\*undulata Raf. op. cit. 12, nom. #XAMOTRIS Raf. New Fl. N. Am. 4:12. 1836 [1838], descr., subgen. Littorella Linn. (Type, Littorella flexuosa Raf.)= Plantago Linn.

#### RUBIACEAE

ACMOSTIMA Raf. Sylva Tellur. 26. 1838, descr.=Palicourea Aubl. (1775).

brevifolia Raf. l.c., descr. (Pavetta pentandra Sw.). West

Indies=Palicourea domingensis (Jacq.) DC.

Ingifolia Raf. 1.c., descr. (Pavetta barbata Sm.) "Shrub of Polinesia" (Rafinesque), "in Hominoa" (Smith)=Saporoea near Ceram, Moluccas=Polyozus? barbata DC.=? Canthium sp.; see Bremekamp, Repert. Sp. Nov. 37:14. 1934.

ANISTELMA Raf. Aut. Bot. 69. 1840, nom. nov. Stelmanis Raf. (1840), non Stelmanis Raf. (1837); Pennell, Bull. Torr. Bot. Club 48:92. 1921 (Oldenlandia alamerata Michx.)—

Bot. Club 48:92. 1921 (Oldenlandia glomerata Michx.)= Oldenlandia Linn.=Hedyotis Linn.

ANTHOSPERMUM Linn.
\*ethiopicum Raf. First Cat. Bot. Gard. Transylv. Univ. 20. 1824, nom.=A. aethiopicum Linn.

APARINE Mill.=Galium Linn.

viscidiflora Raf. Ann. Nat. Ann. Synop. 14. 1820, descr. Alle-

ghany Mountains of Maryland.

AXOLUS Raf. Sylva Tellur. 61. 1838, descr.=Cephalanthus Linn.

angustifolius Raf. 1.c., descr. (Cephalanthus angustifolius Lour.) Indo-China (Annam) = Cephalanthus angustifolius Lour.; see Merrill, Trans. Am. Philos. Soc. II. 24(2):363.

\*BARTRAMIA Bartram, Trav. xviii. 1791, nom.; Raf. Casket 1827:194. 1827, nom., sub Pinckneya bracteata Raf., non Bartramia Linn. (1753), nec Hedw. (1789)=Pinckneya Michx. (1803); see Merrill, Bartonia 23:23. 1945.

BELLILLA Raf. Ann. Gén. Sci. Phys. 6:82, 1820, nom. [Belilla Adams (1763): Relilla Pheeda Hort Malabar 2:27 t 19

Adans. (1763); Belilla Rheede, Hort. Malabar. 2:27. t. 18.

1679] = Mussaenda Linn.

BEMSETIA Raf. Sylva Tellur. 12. 1838, descr.=Ixora Linn. paniculata Raf. 1.c., descr. (Bem-Scheti Rheede, Hort. Malabar. 2:19. t. 14. 1679; Ixora barbata Roxb.; Sims, Bot. Mag. 51: t. 2505. 1824). India=Ixora alba Linn., p.p., quoad Bem-Scheti, et Ixora barbata Roxb.

BENKARA Adans.; Raf. Sylva Tellur. 98. 1838, descr.=Randia

galia Raf. 1.c., nom. (Benkara Rheede, Hort. Malabar. 5:69. t. 35. 1685). India=Randia sp.

BENTECA Adans; Raf. Sylva Tellur. 13. 1838, descr. 42=
Hymenodictyon Wall. (1824).

odorata Raf. l.c., descr. (Bentheka Rheede, Hort. Malabar. 4:63. t. 30. 1673 [1683]). India = Hymenodictyon excelsum

(Roxb.) Wall. (1824). BUBALINA Raf. Ann. Gén. Sci. Phys. 6:86. 1820, nom. nov. provis. (Type, Lonicera bubalina Linn. f.) = Burchellia R.

Br. (1820). \*CALICOCA Raf. Sylva Tellur. 147. 1838, nom. sub Ipecacuana

Raf. = Callicocca Schreb. (1789) = Cephaelis Sw. (1788), nom. conserv. (Carapichea Aubl., 1775; Evea Aubl., 1775; Tapogomea Aubl.; 1775; Chesna Scop., 1777).

\*CALICOCCA Raf. Med. Fl. 1:184. 1828, nom., iter. Man. Med.

Bot. 184. 1841=praec. CEPHALANTHUS Linn.

acuminatus Raf. New Fl. N. Am. 3:25. 1836 [1838], nom. nov. C. occidentalis Linn. North America.

42 Benteca Adans. (1763), Benteka Adans. (1763), Bentheca Neck. (1790) and the binomial Benteka rheedi Roem. & Schult. are all based on Bentheka Rheede, Hort. Malabar. 4:63. t. 30. 1673 [1683]. The three generic names are all currently but erroneously placed as synonyms or probable synonyms of the South American apocynaceous genus Ambelania Aubl. (1775). The Rheede illustration clearly represents the rubiaceous Hymenodictyon Wall. The latter ought to be conserved against Benteca Adans.

†obtusifolius Raf. Herb. Raf. 57. 1833, nom.; New Fl. N. Am. l.c., descr. Kentucky, Missouri = C. occidentalis Linn. pubescens Raf. New Fl. N. Am. l.c., nom. = C. occidentalis Linn. var. pubescens Raf.

occidentalis Linn. var. macrophylla Raf. Med. Fl. 1:101. 1828. descr., iter. Man. Med. Fl. 101. 1841. Louisiana. obtusifolius Raf. op. cit. 102. descr., New York.

pubescens Raf. l.c., descr. Georgia.

#CHAMISME Raf. Ann. Gén. Sci. Phys. 5:227. 1820, descr., subgen. Houstonia Linn. (Type Houstonia purpurea Linn.); Steud. Nomencl. ed. 2, 1:776. 1840, nom. in syn.=Houstonia Linn.

CHIOCOCCA P. Browne.

floridana Raf. Alsogr. Am. 75. 1838, descr. (Chiococca race-mosa auct. Am.). Florida = C. alba (Linn.) Hitche.

latifolia Raf. l.c., descr. Cuba=C. alba (Linn.) Hitchc. \*secundiflora Raf. l.c., nom. nov. Chiococca racemosa Linn. West Indies=C. alba (Linn.) Hitchc.

#CHRISTIMIA Raf. Ann. Gén. Sci. Phys. 5:226. 1820, descr. subgen. Houstonia Linn.

COFFEA Linn.

\*zanguebarica Raf. Sylva Tellur. 164. 1838, nom. sub Hexepta Raf. Zanzibar=Coffea zanguebariae Lour.

CORMIGONUS Raf. Ann. Gén. Sci. Phys. 6:83. 1820, nom. (Portlandia tetrandra Forst.) = Bikkia Reinw. (1826), nom.

\*CORMYLUS Raf. Ann. Gén. Sci. Phys. 5:225. 1820, descr., gen. vel subgen. Hedyotis Linn. (Type Hedyotis hispida

Retz.) = Hedyotis Linn.

CUPUIA Raf. Princ. Somiol. 29. 1814, nom. nov. Coupoui Aubl. (1775); see Wernham, Jour. Bot. 58:105-108. 1920=Coupoui Aubl. (Rubiaceae, not Apocynaceae). \*CUPUYA Raf. Fl. Tellur. 1:85. 1836 [1837], nom. nov. Cou-

poui Aubl. (1775)=praec.

DARLUCA Raf. Ann. Gén. Sci. Phys. 6:87. 1820, nom. (Ixora americana Linn.) = Bouvardia Salisb. (1805).

\*DECAPENTA Raf. Act. Soc. Linn. Bordeaux 6:269. 1834. descr., iter. Merr. Proc. Am. Philos. Soc. 86:89. 1942, non Raf. (1838) = Diodia Linn.

DIODIA Linn.

oblonga Raf. Fl. Ludovic. 76. 1817, descr. (Crucianella 1 Rob. Voy. Louis. 3:452. 1807). Louisiana.

\*DIONEIDON Raf. Act. Soc. Linn. Bordeaux 6:269. descr., iter. Merr. Proc. Am. Philos. Soc. 86:89. 1942, op. cit. 90, nom.=Diodia Linn.

DUHAMELA Raf. Ann. Gén. Sci. Phys. 6:82. 1820, nom. nov. Hamellia Linn. (Hamelia Jacq.)=Hamelia Jacq., 1760 (Duhamelia Pers., 1805).

DYCHOTRIA Raf. Ann. Gén. Sci. Phys. 6:85. 1820, nom., sphalm.=Psychotria Linn.

EDRASTENIA Raf. ex Jacks\*. Ind. Kew. 1:822. 1893, sphalm. =seq.

uniflora Raf. ex Jacks\*. l.c. = Edrastima uniflora Raf. = Hedyotis uniflora (Linn.) Lam. Eastern North America.

\*EDRASTIMA Raf. Act. Soc. Linn. Bordeaux 6:269. 1834, nom., nota, iter. Merr. Proc. Am. Philos. Soc. 86:88. 1942, op. cit. 90, nom.; New Fl. N. Am. 4:101. 1836 [1838], nom. (Oldenlandia uniflora Linn.) = Hedyotis Linn.

\*uniflora Raf. 1.c., nom., nota, iter. Merr. 1.c., nom. (Hedyotis uniflora Lam.). Eastern North America=Hedyotis uniflora (Linn.) Lam. (Oldenlandia uniflora Linn.).

#EDRISIA Raf. Ann. Gén. Sci. Phys. 5:225. 1820, descr. (Poiretia Gmel.), subgen. Houstonia Linn.

ENDOPOGON Raf. Fl. Tellur. 2:54. 1836 [1837], descr., non Raf. 1818=Diodia Linn.

pumilum Raf. op. cit. 55, descr.; Aut. Bot. 13. 1840, nom. Wasioto Hills, eastern Kentucky = Diodia teres Walt.

ERESIMUS Raf. Sylva Tellur. 61. 1838, descr. = Cephalanthus Linn.

stellatus Raf. 1.c., descr. (Cephalanthus stellatus Lour.). Indo-China (Annam) = Cephalanthus angustifolius Lour.; see Merr. Trans. Am. Philos. Soc. II. **24**(2):363. 1935.

ERITHALIS P. Browne

elliptica Raf. Sylva Tellur. 123. 1838, descr. (E. fruticosa sensu Sw.). Jamaica=E. fruticosa Linn. procumbens Raf. l.c., descr. Venezuela (Caracas). #ETOROTIS Raf. New Fl. N. Am. 4:102. 1836 [1838], sub

Houstonia biloba Raf., nom., nota, subgen. Houstonia Linn.

GALIUM Linn.

\*aparinoides Raf. Med. Repos. II. 5:353. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom.; Am. Monthly Mag. Crit. Rev. 2:344. 1818, nom., nota (G. aparine sensu Bigelow); M'Murtrie, Sketch. Louisv. 217. 1819, nom., non Forsk. (1775). Eastern United States=Galium aparine Linn. \*cuspidatum Raf. Med. Repos. II. 5:353. 1808, nom.; Jour.

Bot. (Paris) 2:173. 1809, nom. Eastern United States. longicaule Raf. Fl. Ludovic. 75. 1817, descr. (Galium 2 Rob. Voy. Louis. 3:452. 1807). Louisiana.

parviflorum Raf. Med. Repos. II. 5:360. 1808, descr.; Jour. Bot. (Paris) 1:227. 1809, descr., non Moench (1794). Dela-

\*setaceum Raf. Atl. Jour. 1:17. 1832, descr., non Lam. (1788).

Illinois.

spinulosum Raf. Précis Découv. Somiol. 40. 1814, descr., Jour. Bot. (Desv.) 4:270. 1814, descr., non Mérat (1812). Maryland.

\*viscidum Raf. Herb. Raf. 66. 1833, nom. Appalachian Moun-

GARDENIA Ellis (1761), non Colden, 1756, nec Boehm., 1760, nom. conserv. (Warneria Linn., 1759; Varneria Linn., 1759). \*thunbergiana Raf. Sylva Tellur. 21. 1838, nom. sub Thunbergia Linn. f.=Gardenia thunbergia Linn. f. South Africa. GILIPUS Raf. Sylva Tellur. 61. 1838, descr. = Cephalanthus

Linn.

montanus Raf. 1.c., descr. (Cephalanthus montanus Lour.). Southeastern China=Cephalanthus occidentalis Linn.; see Merrill, Trans. Am. Philos. Soc. II. 24(2):364. 1935. #GONIOTIS Raf. New Fl. N. Am. 4:102. 1836 [1838], nom.

subgen. Houstonia Linn. (Type Houstonia geniculata Raf.).

**HEDYOTIS** Linn.

crassifolia Raf. Fl. Ludovic. 77. 1817, descr. (Anonyme 1 Rob. Voy. Louis. 1:454. 1807). Louisiana. †geniculata Raf. Herb. Raf. 67. 1833, nom.; New Fl. N. Am. 2:21. 1836 [1837], descr. Kentucky (Wasioto Hills). rosea Raf. Fl. Ludovic. 77. 1817, descr. (Anonyme 2 Rob.

1.c.). Louisiana.

HEXEPTA Raf. Sylva Tellur. 164. 1838, descr.=Coffea Linn. axillaris Raf. 1.c., descr. (Coffea zanguebariae Lour.). Zanzibar=Coffea zanguebariae Lour.; see Merrill, Trans. Am. Philos. Soc. II. 24(2):369. 1935.

racemosa Raf. 1.c., descr. (Coffea racemosa Lour.). Mozambique = Coffea racemosa Lour.; see Merrill, 1.c.43

HOUSTONIA Linn.

\*biloba Raf. New Fl. N. Am. 4:101. 1836 [1838], descr. Arkansas.

\*ciliata Raf. Ann. Gén. Sci. Phys. 5:226. 1820, descr. New York (Glenns Falls) = H. ciliolata Torr. (1824) = H. canadensis Willd. (1818).

†fruticosa Raf. Western Rev. Miscel. Mag. 1:93. 1819, nom.; A. Gray, Syn. Fl. N. Am. 1(2):26. 1884, nom., in syn. Kentucky=Houstonia angustifolia Michx.

geniculata Raf. New Fl. N. Am. 4:102. 1836 [1838], descr. Kentucky

grandiflora Raf. Ann. Gén. Sci. Phys. 5:225. 1820, nom. nov. H. caerulea Linn. (H. linnaei Michx.). North America=

Houstonia caerulea Linn. heterophylla Raf. op. cit. 227. 1820, descr.; First Cat. Bot.

Gard. Transylv. Univ. 14. 1824, nom.; Herb. Raf. 63. 1833, nom. (H. ciliolata Torr.). Kentucky=H. canadensis Willd. var. ramosa Raf. Ann. Gén. Sci. Phys. 5:227. 1820, nom. \*longifolia Raf. Herb. Raf. 63. 1833, nom. Kentucky or

Illinois.

oblongifolia Raf. Ann. Gén. Sci. Phys. 5:226. 1820, descr.

New York.

obtusifolia Raf. 1.c., descr. Maryland, Virginia, Kentucky. \*ochroleuca Raf. Ann. 1.c., descr., sphalm. "ocrholeuca" (Houstonia coccinea Andr. var. alba Dum. Cours.). Mexico=Bouvardia triphylla Salisb.=B. coccinea (Andr.) Link.

pubescens Raf. Med. Repos. II. 5:361. 1808, descr.; Jour. Bot. (Paris) 1:230. 1809, descr.; Ann. Gén. Sci. Phys. 5:227. 1820, descr. Pennsylvania, Ohio.

reticulata Raf. New Fl. N. Am. 4:102. 1836 [1838], descr. Alabama.

var. triflora Raf. l.c., descr.

48 Dr. A. Chevalier, in lit., states that in addition to the synonyms given by me, all based on Coffea racemosa Lour., the following species belong here: Coffea ibo Froehner (1897), C. schumanniana Busse (1902), and C. swinnertonii Moore (1911). rupestris Raf. Ann. Gén. Sci. Phys. 5:226. 1820, descr.; Ann. Nat. Ann. Synop. 12. 1820, descr., sphalm. "ropestris"; First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom.; Herb. Raf. 63. 1833, nom., sphalm. "rupestis." Kentucky. IPECACUANA Raf. Sylva Tellur. 147. 1838, descr.=seq. \*fusca Raf. 1.c., nom. (Callicocca ipecacuanha Brot.; Cephaelis

ipecacuanha A. Rich.; Psychotria emetica Linn. f.). South America = Uragoga emetica (Linn. f.) Baill.

IPECACUANHA Arruda (1810) = Uragoga Linn.
fusca Raf. ex Jacks\*. Ind. Kew. 1:1222. 1893 (Ipecacuana fusca Raf.). South America = Uragoga emetica (Linn. f.) Raill

JANGARACA Raf. Ann. Gén. Sci. Phys. 6:82. 1820, nom., sphalm.=Tangaraca Adans. (1763)=Hamelia Jacq. (1760) (Duhamelia Pers., 1805).

JOCAYENA Raf. Ann. Gén. Sci. Phys. 6:82. 1820, nom., sphalm.=Tocoyena Aubl. (1775).

JONTANEA Raf. Ann. Gén. Sci. Phys. 6:82. 1820, nom., sphalm.=Tontanea Aubl. (1775)=Coccocypselum P. Br. (1756).

JURGENSIA Raf. Sylva Tellur. 146. 1838, descr. = Spermacoce Linn.

psyllioides Raf. op. cit. 147, descr. (Spermacoce psyllioides

H.B.K.). Mexico.

KANDENA Raf. Sylva Tellur. 138. 1838, descr.=Canthium Lam. (1785).

spinosa Raf. l.c., descr. (Kanden-Kara Rheede, Hort. Malabar. 5:71. t. 36. 1685). India (Malabar) = Canthium parviflorum Lam.

MATTUSKEA Raf. Princ. Somiol. 30. 1814, nom. nov. Mattuschkaea Schreb. (1791) = Perama Aubl. (1775).

MUSSAENDA Linn.

bracteata Raf. Casket 1827:194. 1827, nom. sub Pinckneya bracteata Raf.; Sat. Eve. Post 6(303):[4]. 1827, nom. (Pinckneya bracteata Raf.); Med. Fl. 2:58. 1830, nom. Southeastern United States=Pinckneya puber 3:286, 1804

MYRSSIPHYLLA Raf. ex Jacks\*. Ind. Kew. 2:286. 1894, sphalm.=Myrstiphylla Raf.=Psychotria Linn.

rigida Raf. ex Jacks\*. l.c., sphalm.=Myrstiphylla rigida Raf. =Psychotria myrstiphyllum Sw. Jamaica.

\*MYRSTIPHYLLA Raf. Sylva Tellur. 148. 1838, descr.=

Myrstiphyllum P. Br.=Psychotria Linn.

\*rigida Paf 12 man / Parabatica.

\*rigida Raf. l.c., nom. (Psychotria myrstiphyllum Sw. [Myrstiphyllum P. Br. Nat. Hist. Jam. 152. 1756]). lamaica.

NAREGA Raf. Sylva Tellur. 98. 1838, descr. (Catunaregam Adans.) = Randia Linn.

Adans.) = Randia Linn.

coduva Raf. l.c., nom. (Catu-Naregam Rheede, Hort. Malabar.
4:29. t. 13. 1683). Malabar = Randia dumetorum Lam.

NELEIXA Raf. New Fl. N. Am. 4:56. 1836 [1838], nom. alt.

Darluca Raf. = Faramea Aubl. (1775).

NETTLERA Raf. Sylva Tellur. 147. 1838, nom. nov. Carapichea Aubl. = Cephaëlis Sw. (1788), nom. conserve. (Carabichea Aubl. 1775. Erosa Aubl. 1775. Tabacamer. Aubl. pichea Aubl., 1775; Evea Aubl., 1775; Tapogomea Aubl., 1775; Chesna Scop., 1777). guianensis Raf. 1.c., nom. (Carapichea guianensis Aubl.;

Cephaëlis involucrata Willd.). Guiana = Cephaëlis guianensis

(Aubl.) Bremek.

#OSMAX Raf. Sylva Tellur. 26. 1838, nom. nov. provis., gen. vel subgen., sub Acmostima brevifolia Raf.=Palicourea Aubl. (1775).

PALICURIA Raf. Ann. Gén. Sci. Phys. 6:86. 1830.

Sylva Tellur. 148. 1838, nom. = Palicourea Aubl. (1775).

\*PALOVEA Raf. Fl. Tellur. 1:85. 1836 [1837], nom. nov.

Schwenkfeldia Schreb. (1789), non Palovea Aubl. (1775) = Sabicea Aubl. (1775).

PANETOS Raf. Ann. Gén. Sci. Phys. 5;225. nom., 227, descr. 1820; op. cit. 6:81. 1820, nom., nota. (Type Houstonia rotundifolia Michx.) = Houstonia Linn.

PATABEA Aubl.=Psychotria Linn.

\*guianensis Raf. Sylva Tellur. 149. 1838, descr. [Patabea coccinea Aubl.]. Guiana.

PECKEYA Raf. Ann. Gén. Sci. Phys. 6:87. 1820, nom., sphalm.=Pecheya Neck. [Scop. 1777]=Coussarea Aubl. (1775).

\*PEDERIA Raf. Am. Gén. Sci. Phys. 6:86. 1820, nom.= Paederia Linn.

PHOSANTHUS Raf. Ann. Gén. Sci. Phys. 6:82. 1820, nom.=

Isertia Schreb. (1789). coccinea Raf. ex Jacks\*. Ind. Kew. 2:503. 1894 (Guettarda coccinea Aubl.). Guiana=Isertia coccinea (Aubl.) Vahl.

PINCKNEYA Michx.

\*bracteata Raf. Casket 1827; 194. f. 17. 1827, descr.; Sat. Eve. Post 6(303):[4]. 1 f. 1827, descr. (Bartramia \*bracteata Bartr. Trav. XVIII. 1791, nom.; Bigonia \*bracteata Bartr. op. cit. 468, nom., nota,; op. cit. 16 descr., sine nom.; Mussaenda \*bracteata Raf. Casket 1.c., nom.; Sat. Eve. Post 6(303):[4]. 1827, nom.). Southeastern United States=Pinckneya pubens Michx.

PINKNEYA Raf. Ann. Gén. Sci. Phys. 6:81. 1820, nom., sphalm.

Pinckneya Michx. (1803).

PLEIMERIS Raf. Sylva Tellur. 21. 1838, descr., nom. nov. Thunbergia Montin (1773), non Retz. (1776) = Gardenia Ellis (1761), nom. conserv. (Warneria Linn., 1759; Varneria Linn., 1759).

capensis Raf. 1.c., descr (Thunbergia capensis Linn. f.; Gardenia thunbergia Linn. f.). South Africa=Gardenia thun-

bergia Linn. f.

PLETHYRSIS Raf. Aut. Bot. 13. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:92. 1891, nom. =? Richardia Linn. glauca Raf. 1.c., descr.; Pennell, 1.c., nom. Unaka or Iron Mountains of North Carolina.

PLEUREIA Raf. Sylva Tellur. 147. 1838, descr.=Psychotria

compressa Raf. 1.c., descr. (Psychotria calycina H.B.K.). Colombia.

POSORIA Raf. Ann. Gén. Sci. Phys. 6:80. 1820, nom. nov. Posoqueria Aubl.

RUBIA Linn.

techensis Raf. Fl. Ludovic. 76. 1817, descr. (Rubia Rob. Voy. Louis. 3:453. 1807). Louisiana=Galium sp. \*SMIRUS Raf. Sylva Tellur. 147. 1838, nom., sub Pleureia Raf.

Ouid 7

SPERMACOCE Linn.

Rob. Voy. Louis. 3:453. 1807). Louisiana.

\*latifolia Raf. Herb. Raf. 62. 1833, nom. Kentucky or Illi-

\*spinulosa Raf. l.c., nom. Kentucky or Illinois.

\*SPERMACON Raf. Act. Soc. Linn. Bordeaux 6:269. 1834,
descr., iter. Merr. Proc. Am. Philos. Soc. 86:89. 1942;
op. cit. 90, nom. = Spermacoce Linn.

STELMANIS Raf. Aut. Bot. 13. 1840, descr., non Stelmanis

Raf. (1837) = Anistelma Raf. op. cit. 69 = Hedyotis Linn.

(Oldenlandia Linn.).

\*glomerata Raf. 1.c., descr. (Oldenlandia glomerata Michx.; Hedyotis glomerata Ell.). New Jersey to Louisiana = Hedyotis uniflora (Linn.) Lam. (Oldenlandia uniflora Linn.).

†STELMOTIS Raf. New Fl. N. Am. 2:21. 1836 [1837], nom.; op. cit. 4:101. 1836 [1838], nom., nota = Stelmanis Raf.

(1840)=Anistelma Raf. (1840)=Hedyotis Linn. (Oldenlandia Linn.).

glomerata Raf. op. cit. 4:101. 1836 [1838], nom. (Oldenlandia glomerata Michx.: Hedyotis glomerata Ell.). Eastern United States = Hedyotis uniflora (Linn.) Lam. (Oldenlandia uniflora Linn.).

#STENARIA Raf. Ann. Gén. Sci. Phys. 5:226. 1820, descr. subgen. Houstonia Linn. (Type Houstonia longifolia (Type Houstonia longifolia Gaertn.) = Houstonia Linn.

SULCANUX Raf. Sylva Tellur. 148. 1838, nom. nov. provis. (Type Psychotria gracilis Ruiz & Pavon) = Geophila D. Don (1825).

\*TAPOGAMEA Raf. Sylva Tellur. 147. 1838, nom., sphalm.= Tapogomea Aubl. (1775) = Cephaëlis Sw. (1788), nom. conserv.

\*TARAMEA Raf. Am. Gén. Sci. Phys. 6:68. 1820, nom., sphalm.=Faramea Aubl. (1775).

URUPARIA Raf. Sylva Tellur. 148. 1838, descr. (Agylophora Neck., 1790 [Ourouparia Aubl., 1775] = Uncaria Schreb. (1789), nom. conserv. (Ourouparia Aubl., 1775).

versicolor Raf. 1.c., descr. ([Ourouparia] guinanensis Aubl.).
Guiana=Uncaria guinanensis (Aubl.) J. F. Gmel.

\*VAILLANTA Raf. Specch. Sci. 1:87. 1814, nom. nov. Valantia Linn.=Vaillantia Gled. (1751).

\*VANASTA Raf. Fl. Tellur. 3:100. 1836 [1837], nom. in indice = seq.

VANESSA Raf. Fl. Tellur. 3:57. 1836 [1837], descr. = Manettia Mutis (1771).

cordifolia Raf. I.c., descr. (Manettia cordifolia Mart.; Hook. Bot. Mag. 59: t. 3202. 1832). Argentina.

VIVIANA Raf. Specch. Sci. 1:117. 1814, descr.; Précis Découv.

Somiol. 1814, nom. (p. 4 of cover); Jour. Bot. (Desv.) 4:277

(err. 177). 1814, nom.; Ann. Gén. Sci. Phys. 6:81. 1820, nom.=Guettarda Linn.

domingensis Raf. 1.c., descr. Santo Domingo=Guettarda sp. XEROMPHIS Raf. Sylva Tellur. 21. 1838, descr.=Randia Linn. retzi Raf. I.c., descr. (Gardenia dumetorum Retz.). East Indies=Randia dumetorum Lam.

YANGAPA Raf. Sylva Tellur. 20. 1838, descr.=Gardenia Ellis (1761), nom. conserv. (Warneria Linn., 1759; Varneria

Linn., 1759).

flava Raf. 1.c., descr. (Gardenia coronaria Buch.-Ham.). Burma.

ZALMARIA Raf. ex Jacks\*. Ind. Kew. 2:1244. 1895, sphalm.=

ZAMARIA Raf. Ann. Gén. Sci. Phys. 6:85. 1820, nom. (Rondeletia sp.) = Rondeletia Linn.

#### CAPRIFOLIACEAE

CAPRIFOLIUM Linn. = Lonicera Linn.

\*acutifolium Raf. Herb. Raf. 51. 1833, nom. Rocky Mountains or Oregon.

dentatum Raf. Atl. Jour. 1:151. 1832, descr. Near Lakes Erie and Ontario=Lonicera dioica Linn.

\*ellipticum Raf. Herb. Raf. 59. 1833, nom. Ohio.

\*eriense Raf. l.c., nom. Near Lake Erie. \*flavum Raf. ex Gussone, Fl. Sicul. Syn. 1:260. 1843, nom.

in syn. Sicily=Lonicera etrusca Savi.
\*macrophyllum Raf. l.c., nom. Alleghany Mountains.
rubrum Raf. Fl. Ludovic. 78. 1817, descr. (Caprifolium 1
Rob. Voy. Louis. 3:457. 1807); New Fl. N. Am. 3:18. 1836

[1838], nom. Louisiana = ? Lonicera sempervirens Linn. †rupestre Raf. Herb. Raf. 59. 1833, nom.; New Fl. N. Am. 3:17. 1836 [1838], nom. alt. Lonicera rupestris Raf. Ken-

tucky=? Lonicera prolifera (Kirchn.) Rehder. \*sinuatum Raf. Herb. Raf. 59. 1833, nom. Ohio.

\*CHAMERASIA Raf. Ann. Gén. Sci. Phys. 6:85. 1820, nom. nov. Chamaecerasus Medic. (1789) = Lonicera Linn.

#CYPHEOLA Raf. New Fl. N. Am. 3:20. 1836 [1838], descr., subgen. Lonicera Linn.

DIERVILLA Linn.

longifolia Raf. New Fl. N. Am. 3:21. 1836 [1838], descr. New York.

parvifolia Raf. op. cit. 22, descr. Alleghany Mountains.

DISTEGIA Raf. New Fl. N. Am. 3:20. 1836 [1838], descr.; Good Book 45. 1840, nom.=Lonicera Linn.

nutans Raf. op. cit. 21, descr. (Xylosteon involucratum Richards.). Hudson Bay and boreal America=Lonicera involucrata (Richards.) Banks (Xylosteum involucratum Richards.) Rydb.).

#EUNEMIUM Raf. New Fl. N. Am. 3:21. 1836 [1838], descr. subgen. Lonicera Linn. (Type Caprifolum longifolium Sabine; Lindl. Bot. Reg. 15: t. 1232. 1829) = Lonicera Linn.

\*JINUS Raf. Ann. Gén. Sci. Phys. 6:87. 1820, nom., sphalm.= Tinus Linn.=Viburnum Linn.

#KANTEMON Raf. New Fl. N. Am. 3:19, nom., 20, descr. 1836 [1838], subgen. Lonicera Linn.

angustifolium Raf. 1.c. 19, nom. alt. Lonicera angustifolia Raf. North America=Lonicera sempervirens Linn. forma minor (Ait.) Rehder.

ciliosum Raf. l.c., nom. alt. Lonicera ciliosa Poir. [Caprifolium ciliosum Pursh]. North America=Lonicera ciliosa (Pursh) Poir.

KARPATON Raf. Fl. Ludovic. 78. 1817, descr.; Am. Monthly Mag. Crit. Rev. 4:88. 1819, nom.; Ann. Gén. Sci. Phys. 6: 1820, nom.=Triosteum Linn.

hastatum Raf. Fl. Ludovic. 79. 1817, descr. [Anonyme Rob. Voy. Louis. 3:457. 1807]. Louisiana.

LENTAGO Raf. Fl. Ludovic. 78. 1817, descr., subgen. Viburnum Linn.; Am. Monthly Mag. Crit. Rev. 2:265. 1818, nom., nota, gen. vel subgen.; Ann. Gén. Sci. Phys. 5:351. 1820, descr., gen., subgen. vel sect.; op. cit. 6:87. 1820, descr., gen.; Isis von Oken 1821, 2:979. 1821, descr. ut gen.; Alsogr. Am. 51. 1838, descr., subgen. Viburnum Linn.; Good Book 49. 1840, nom.=Viburnum Linn.

LINNEA Neck .= Linnaea Linn.

\*borealis Raf. First Cat. Bot. Gard. Transylv. Univ. 22. 1824, nom.=Linnaea borealis Linn.

\*LINNEUSIA Raf. Med. Fl. 2:239. 1830, nom. [Linnaea Linn.]. \*borealis Raf. 1.c., nom. [Linnaea borealis Linn.]. North temperate zone.

LONICERA Linn.

acutifolia Raf. New Fl. N. Am. 3:19. 1836 [1838], descr. Alleghany Mountains=? L. dioica Linn.

angustifolia Raf. I.c., descr. Florida = L. sempervirens Linn. forma minor (Ait.) Rehder.

dentata Raf. 1.c., descr. Alleghany and Kiskatom Mountains =L. dioica Linn.

elliptica Raf. op. cit. 18, descr. Appalachian Mountains of Virginia and Carolina =? L. dioica Linn.

var. macrophyla Raf. l.c., descr.

minor Raf. 1.c., descr. eriensis Raf. 1.c., descr. Lake Erie=? L. hirsuta Eaton. ovata Raf. l.c., descr. Appalachian Mountains =? L. dioica Linn.

reticulata Raf. l.c., descr. Ohio, Kentucky=? seq. rupestris Raf. op. cit. 17, descr. Kentucky, Illinois=? L. prolifera (Kirchn.) Rehder.

#OLMA Raf. Alsogr. Am. 47. 1838, descr., subgen. Sambucus Linn. = Sambucus Linn. sect. Olma (Raf.) Rehder. 
\*PERICLYMA Raf. Ann. Gén. Sci. Phys. 6:83. 1820, nom. nov.

Periclymenum Mill.=Lonicera Linn.

PHENIANTHUS Raf. Ann. Gén. Sci. Phys. 6:85. 1820, nom. = Lonicera Linn.

sempervirens Raf. ex Jacks\*. Ind. Kew. 2:494. 1894 (Lonicera sempervirens Linn.). Eastern North America.

SAMBUCUS Linn.

alba Raf. Alsogr. Am. 48. 1838, descr. Europe=S. nigra Linn. forma alba (West.) Rehder.
\*bipinnata Raf. op. cit. 47, descr., nom. nov. Sambucus cana-

densis Linn.

caerulea Raf. ex Jacks\*. Ind. Kew. 2:796. 1895=seq.

\*cerulea Raf. Herb. Raf. 54. 1833, nom., nota; New Fl. N. Am. 3:95. 1836 [1838], nom., nota; Alsogr. Am. 48. 1838, descr. Northwestern United States (Lewis & Clark) (S. glauca Nutt., 1841).

dimidiata Raf. Alsogr. Am. 49. 1838, descr. Canada and New

York (Catskill Mountains) = S. pubens Michx.
\*ebuloides Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom.; Herb. Raf. 61. 1833, nom.; Alsogr. Am. 49. 1838, descr. Kentucky or Illinois; southern Europe.

humilis Raf. Ann. Nat. Ann. Synop. 13. 1820, descr.; Alsogr. Am. 48. 1838, descr. Ohio River in [West] Virginia.

repens Raf. Alsogr. Am. 47. 1838, descr. Canada to Louisiana=S. canadensis Linn.

rupestris Raf. op. cit. 50, descr. Turkey Mountains in the Alleghanies = S. pubens Michx.

verrucosa Raf. op. cit. 49, descr. Alleghany Mountains=S. pubens Michx.

SYMPHORIA Pers. = Symphoricarpos Du Hamel (1755). alba Raf. New Fl. N. Am. 3:21. 1836 [1838], nom. North America = Symphoricarpos albus (Linn.) Blake (S. racemosus Michx.).

\*debilis Raf. Med. Fl. 2:266. 1830, nom. North America. heterophyla Raf. New Fl. N. Am. 3:21. 1836 [1838], descr. "Missouri," cult. [Philadelphia] [Symphoricarpos rivularis Suksd.?].

rubra Raf. New Fl. N. Am. 3:21. 1836 [1838], nom. North America = Symphoricarpos orbiculatus Moench (S. vulgaris Michx.)

THYRSOSMA Raf. Sylva Tellur. 130. 1838, descr.; Alsogr. Am. 51. 1838, descr.=Viburnum Linn.

chinensis Raf. Il.cc., descr., nom. (Viburnum odoratissimum Ker-Gawl. Bot. Reg. 6: t. 456. 1820). China.

TRIOSTEUM Linn. connatum Raf. New Fl. N. Am. 2:35. 1836 [1837], descr. Alleghany Mountains=T. perfoliatum Linn.

hispidum Raf. op. cit. 37, descr. Western Kentucky. (? T.

aurantiacum Bicknell, 1901). levigatum Raf. l.c., descr. Appalachian Mountains, Georgia and Alabama; cultivated in gardens=T. perfoliatum Linn. \*medium Raf. First Cat. Bot. Gard. Transylv. Univ. 16. 1824,

nom. Kentucky.
molle Raf. New Fl. N. Am. 2:36. 1836 [1837], descr. Missouri=T. perfoliatum Linn.

obovatum Raf. op. cit. 37, descr. New York to Illinois=T. perfoliatum Linn.

pumilum Raf. op. cit. 36, descr. Appalachian Mountains of

Virginia=T. angustifolium Linn. villosum Raf. l.c., descr. Maryland to New Jersey=T. angustifolium Linn.

VALENTIANA Raf. Specch. Sci. 1:87. 1814, descr. Quid? volubilis Raf. 1.c., descr. Malta, e Abyssinia, cult. Sicily.

VIBURNUM Linn.

amblodes Raf. Alsogr. Am. 55. 1838, descr. Kentucky=V. prunifolium Linn.

capitatum Raf. op. cit. 56. descr. Georgia or Florida. †edule Raf. Med. Repos. III. 2:333. 1811, nom. ("V. opulus, Michx. Muhl."); Am. Monthly Mag. Crit. Rev. 2:265. 1818, nom. Eastern United States; see Fernald, Rhodora 43:481. 1941.

\*edulum Raf. Med. Repos. II. 5:354. 1808, nom. ("V. opulus Linn. var. of Mich."); Jour. Bot. (Paris) 2:174. 1809, nom.=praec.

Alsogr. Am. 52. 1838, descr.; Aut. Bot. 5. 1840, nom. New Jersey =? V. lentago Linn.

glaucum Raf. Alsogr. Am. 53. 1838, descr. Unaka Mountains,

North Carolina.

†heterophylum Raf. Herb. Raf. 57. 1833, nom.; Alsogr. Am. 52. 1838, descr.; Aut. Bot. 5. 1840, nom. Alleghany Mountains.

\*lanceolatum Raf. Herb. Raf. 57. 1833, nom.; Alsogr. Am. 56. 1838, descr. Illinois. †laurifolium Raf. Herb. Raf. 57. 1833, nom.; Alsogr. Am. 52.

1838, descr. (Viburnum nudum Linn.); Aut. Bot. 5. 1840, nom. New Jersey to Ohio, Florida and Louisiana=V. nudum Linn.

lentagoides Raf. Med. Repos. II. 5:354. 1808, nom. ("V.
lentago of Lin. Mich."); Jour. Bot. (Paris) 2:174. 1809,
nom. (Viburnum lentago Linn., var.)=V. lentago Linn. Eastern United States.

\*levigatum Raf. Med. Fl. 2:274. 1839, nom.=V. laevigatum

Ait. Eastern North America.

longifolium Raf. Alsogr. Am. 56. 1838, descr. (Viburnum pyrifolium Poir., var. pennsylvanicum Sm.). Alleghany Mountains, Pennsylvania to Carolina=? V. lentago Linn.

macrodon Raf. Atl. Jour. 1:17. 1832, descr. Alleghany Mountains.

membranaceum Raf. Alsogr. Am. 51. 1838, descr.; Aut. Bot. 5. 1840, nom. Georgia, Florida.

obliquatum Raf. Alsogr. Am. 54. 1838, descr. (V. \*ulmifolium Donn, Hort. Cantab. ed. 4, 62. 1807, nom.; Muhl. Cat. 32.

\*oxycocus Raf. Med. Fl. 2:274. 1830, nom.; Alsogr. Am. 57. 1838, nom.=V. oxycoccos Pursh. North America.

palustre Raf. Alsogr. Am. 56. 1838, descr. (V. nudum sensu Ell.). Carolina.

pauciflorum Raf. op. cit. 58, descr. Labrador = V. edule (Michx.) Raf.

\*pimina Raf. op. cit. 57. 1838, descr. (V. oxycoccos Pursh; [Viburnum opulus Linn. var. pimina Michx.]). Canada to Ohio=Viburnum trilobum Marsh.

var. subcordatum Raf. op. cit. 58, descr. Alleghany Mountains of western Pennsylvania. pinnina Raf. ex Jacks\*. Ind. Kew. 2:1194. 1895, sphalm.=

praec.

primina Raf. Med. Repos. II. 5:354. 1808, nom.; Jour. Bot. 2:174. 1809, nom. (Virburnum opulus Linn. var. pimina Michx.). Eastern North America=praec.

punctatum Raf. ex DC. Prodr. 4:326. 1830, nom. in syn. sub
 Viburnum cassinoides Linn.; Alsogr. Am. 53. 1838, nom.;
 Aut. Bot. 5. 1840, nom. sub Viburnum squamatum Muhl.

Eastern North America.

repandum Raf. Alsogr. Am. 53. 1838, descr. Virginia. \*resinosum Raf. Herb. Raf. 58. 1833, nom. "pine barrens" [New Jersey].

retusum Raf. Alsogr. Am. 53. 1838, descr.; Aut. Bot. 5. 1840, nom. Alabama.

rotundifolium Raf. op. cit. 54, descr.; Herb. Raf. 57. 1833, nom. Alleghany Mountains.

rufidulum Raf. op. cit. 56, descr. Alabama. (V. rufotomento-sum Small). Virginia to Illinois and Kansas south to Florida and Texas.

tomentosum Raf. Med. Repos. II. 5:354. 1808, nom. dentatum Linn. var. semitomentosum Michx.); Jour. Bot. (Paris) 2:174. 1809, nom; non Lam. (1778), nec. Thunb. (1784). Eastern North America=? V. scabrellum Chapm.

villosum Raf. Med. Repos. II. 5:361. 1808, descr.; Jour. Bot. (Paris) 1:228. 1809, descr.; Gerard, Bull. Torr. Bot. Club 12:37. 1885, nom., non Sw. (1788). Pennsylvania=V. pubescens Pursh, fide Raf. Alsogr. Am. 57. 1838 (V. rafinesquianum Schult.).

XYLOSTEON Adans.=Lonicera Linn.

\*canescens Raf. Am. Monthly Mag. Crit. Rev. 1:440. 1817, nom. [Lonicera canescens Schousb.]. North Africa.

puniceum Raf. op. cit. 21, descr. (Symphorea punicea Loud.; Lonicera punicea Sims; Hook. Bot. Mag. 51: t. 2469. 1824). "Canada" [Siberia] = Symphoricarpos puniceus (Sims) Loud. = Lonicera tatarica Linn. forma sibirica (Pers.) Rehder.

\*siculum Raf. Am. Monthly Mag. Crit. Rev. 1:440. 1817, descr.; Fl. Ludovic. 169. 1817, nom. Sicily.

\*villosum Raf. Chloris Aetn. 10. 1815, nom. (sphalm. "Xylorteum"). Sicily.

# VALERIANACEAE

\*AMBLOPHUS Raf. Aut. Bot. 89. 1840, descr., sub Valeriana gracilis Raf. (Type Valeriana scandens Loefl.)=Valeriana Linn.

\*DIOLOTHECA Raf. Ann. Gén. Sci. Phys. 6:77. 1820, nom.,

sphalm.=seq.

DIOTOTHECA Raf. Fl. Ludovic. 74. 1817, descr.: Am. Monthly Mag. Crit. Rev. 4:188. 1819, nom.; Fl. Tellur. 4:96. 1836 [1838], descr., non Vaillant fide Raf. Ex descr.=? Valerianella Mill. (1754).

repens Raf. op. cit. 75, descr. (Scabiosa Rob. Voy. Louis. 3: 449. 1807); Fl. Tellur. l.c., descr. Louisiana.

FEDIA Gaertn. (1791) = Valerianella Mill., 1754).

brevifolia Raf. Atl. Jour. 1:177. 1833, descr.; Herb. Raf. 22.

ternifolia Rat. op. cit. 68, descr.; Aut. Bot. 88. 1840, nom. Kentucky.

hemiodes Raf. op. cit. 68, descr., l.c., nom. Arkansas. ligulata Raf. ll.cc., descr., nom. Arkansas, Louisiana. FUISA Raf. Aut. Bot. 88. 1840, descr.; Pennell Bull. Torr. Bot. Club 48:94. 1921, nom.=Patrinia Juss (1807), nom. con-serv. (Fedia Adans., 1763; Moufetta Neck., 1790).

rupestris Raf. l.c., nom. (Valeriana rupestris Pallas; V. sibirica Linn.); Pennell, l.c., nom. Siberia.

GYTONANTHUS Raf. Ann. Gén. Sci. Phys. 6:88. 1820, nom.

(Type Valeriana sibirica Linn.) = Patrinia Juss (1807), nom.

conserv. (Fedia Adans., 1763; Moufetta Neck., 1790).

HEMEOTRIA Raf. Ann. Gén. Sci. Phys. 6:88. 1820, nom.
(Type Valeriana chaerophylla Pers.)=Astrephia Dufr.

(1811)

KENTRANTHUS Neck. (1790) = Centranthus DC. (1805).
\*ruber Raf. Aut. Bot. 88. 1840, nom. (Valeriana rubra Linn.; Centranthera ruber DC.; Kentranthus ruber Druce, 1897). Europe, Asia, Africa.

MITROPHORA Neck. (1790) = Fedia Gaertn. (1791), non Adans.

MITROPHORA Neck. (1790) = Fedia Gaertin. (1791), non Adans. (1763), nom. conserv. (Mitrophora Neck., 1790).

cornucopia Raf. Chloris Aetn. 5. 1815, nom. (Valeriana cornucopiae Linn.); Aut. Bot. 88. 1840, descr. Sicily, Armenia = Fedia cornucopiae (Linn.) Gaertin.

MONASTES Raf. Aut. Bot. 88. 1840, nom. alt. Rittera Raf.; Pennell, Bull. Torr. Bot. Club 48:94. 1921, nom. = Centranthus DC. (1805) (Kentranthus Neck., 1790).

ODONTOCARPA Neck. (1790) = Valerianella Mill. (1754).

\*coronata Raf. Aut. Bot. 88. 1840, nom. (Fedia coronata

\*coronata Raf. Aut. Bot. 88. 1840, nom. (Fedia coronata Vahl; Valerianella coronata DC.). Lusitania.

\*dentata Raf. l.c., nom. (Fedia dentata Sieber; Valerianella dentata Pollich). England.

\*olitoria Raf. 1.c., nom. (Fedia olitoria Vahl; Valeriana lo-

custa Linn.). Europe. \*scabiosea Raf. Specch. Sci. 2:172. 1814, descr. Sicily.

\*ONCOLON Raf. Aut. Bot. 89. 1840, descr. sub Valeriana gracilis Raf. (Type Valeriana echinata Linn.)=Valerianella Mill. (1754)

\*ONCOSINA Raf. Aut. Bot. 89. 1840, descr. sub Valeriana gracilis Raf. (Type Valeriana vesicaria Mill.) = Valerianella Mill. (1754).

RITTERA Raf. Aut. Bot. 88. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:94. 1921, nom., non Schreber (1789) = Centranthus DC. (1805) (Kentranthus Neck., 1790). calcitrapa Raf. l.c., nom. (Valeriana calcitrapa Linn.); Pennell, l.c., nom. Europe.

SALIUNCA Raf. Aut. Bot. 87. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:93. 1921, nom.=Valerianella Mill. (1754).

plantaginea Raf. 1.c., descr.; Pennell. 1.c., nom. Carpathian or Caucasus Mountains.

VALERIANA Linn.

\*cherophylla Raf. Ann. Gén. Sci. Phys. 6:88. 1820, nom.= Valeriana chaerophylla Pers. = Astrephia chaerophylloides (Sm.) DC. Peru. \*gracilis Raf. Aut. Bot. 89. 1840, descr. (V. alpina Adam.).

Siberia=Valeriana alpestris Stev.

#### DIPSACEAE

ASTROCEPHALUS Raf. Fl. Tellur. 4:94. 1836 [1838] =
Asterocephalus (Vaill.) Adans.=Scabiosa Linn.
ciliata Raf. ex Jacks\*. Ind. Kew. 1:240. 1893 (Scabiosa

ciliata Spreng.). Greece.

integrifolia Raf. ex Jacks\*. l.c. (Scabiosa integrifolia Linn.). Greece, Asia Minor.

\*pumila Raf. Aut. Bot. 90. 1840, descr. Sicily. rigida Raf. ex Jacks\*. Ind. Kew. 1:240. 1893 (Scabiosa rigida Linn.). South Africa=Cephalaria rigida (Linn.) Roem. & Schult.

sylvatica Raf. ex Jacks\*. 1.c. (Scabiosa sylvatica Linn.). Europe, Caucasus.

tatarica Raf. ex Jacks\*. 1.c. (Scabiosa tatarica Linn.) = Cephalaria tatarica (Linn.) Schrad. Northern Asia.

uralensis Raf. ex Jacks\*. l.c. (Scabiosa uralensis Willd.) = Cephalaria tatarica (Linn.) Schrad. Eurasia.

CEPALARIA Raf. ex Jacks\*. Ind. Kew. 1:480. 1893, sphalm.= Cephalaria Schrad.

#CODOSTELMA Raf. Fl. Tellur. 4:95. 1836 [1838], descr.. subgen. Lomelosia Raf. (Type Lomelosia simplex Raf. [Scabiosa simplex Desf.] = Scabiosa Linn.

DIPSACUS Linn. †cuneifolius Raf. Herb. Raf. 68. 1833, nom.; New Fl. N. Am. 2:19. 1836 [1837], descr. Alleghany Mountains and

Kentucky=D. sylvestris Huds. EUPTILIA Raf. Fl. Tellur. 4:95. 1836 [1838], descr.=Ptero-

cephalus Adans. (1763). cretica Raf. I.c., nom. (Scabiosa papposa Linn.; S. involu-crata Sibth. & Sm.). Crete=Pterocephalus papposus (Sibth. & Sm.) Coult.

GONOKEROS Raf. Fl. Tellur. 4:96. 1836 [1838], descr.= Cephalaria Schrad. (1814).

hungaricus Raf. 1.c., nom. (Scabiosa corniculata Waldenst. & Kit.). Hungary.

†LEUCOPSORA Raf. New Fl. N. Am. 1:26. 1836, nom.; Fl. Tellur. 4:95. 1836 [1838], descr.=Cephalaria Schrad. (1814).

leucantha Raf. ex Jacks\*. Ind. Kew. 2:73. 1894 (Scabiosa leucantha Linn.). Southwestern Europe=Cephalaria leu-cantha (Linn.) Schrad.

**LOMELOSIA** Raf. Fl. Tellur. 4:95. 1836 [1838], descr.= Scabiosa Linn.

coronopifolia Raf. 1.c., nom. (Scabiosa coronopifolia Sibth. & Sm.). Mediterranean region.

palestina Raf. I.c., nom. [Scabiosa palaestina Linn.]. Asia Minor.

simplex Raf. 1.c., nom. [Scabiosa simplex Desf.]. North Africa. stellata Raf. 1.c., nom. (Scabiosa stellata Linn.). Mediter-

ranean region. **PENTENA** Raf. Sylva Tellur. **4:96**. 1836 [1838], descr.=

Scabiosa Linn.

Scabiosa Linn.

\*banatica Raf. Aut. Bot. 90. 1840, nom. (Scabiosa banatica Waldst. & Kit.). Hungary.

ochroleuca Raf. Fl. Tellur. 4:96. 1836 [1838], descr. (Scabiosa ochroleuca Linn.); Aut. Bot. 90. 1840, nom. Europe.

uniseta Raf. I.c., descr. (Scabiosa uniseta Savi, Fl. Pisan. 1:

167. t. 2. 1798). Mediterranean region.

#PENTEXIS Raf. Fl. Tellur. 4:95. 1836 [1838], descr., subgen. Tereiphas Raf. (Type Scabiosa rutaefolia Vahl) =

Scabiosa Linn.

\*PLESIOPSORA Raf. Fl. Tellur. 4:95. 1836 [1838], descr.

\*PLESIOPSORA Raf. Fl. Tellur. 4:95. 1836 [1838], descr.= Scabiosa Linn.

\*africana Raf. l.c., nom. [Scabiosa africana Linn.]. South Africa.

\*monspeliaca Raf. 1.c., nom. [Scabiosa monspeliaca Georgi]. Tauria.

\*sicula Raf. 1.c., nom. [Scabiosa sicula Linn.]. Southern Europe.

PTEROCEPHALUS Vaill. = Scabiosa Linn. incanus Raf. Fl. Tellur. 4:94. 1836 [1838], nom. (Scabiosa pterocephala Linn.). Greece.

\*plumosus Raf. l.c., nom. (Scabiosa plumosa Sibth. & Sm.;
Knautia plumosa Linn.). Greece, Asia Minor.

SCABIOSA Linn.

Angulata Raf. Car. Nuov. Gen. Sp. Sicil. 81. 1810, descr.; Stat. Gen. Sicil. 28. 1810, nom.; Chloris Aetn. 11. 1815, nom. Sicily.

SIXALIX Raf. Fl. Tellur. 4:95. 1836 [1838], descr. = Scabiosa

Linn.

daucoides Raf. op. cit. 96, nom. (Scabiosa daucoides Desf.). Algeria. SUCCISA Neck.; Raf. Fl. Tellur. 4:94. 1836 [1838], descr.=

Scabiosa Linn.

arvensis Raf. l.c., nom.; Aut. Bot. 90. 1840, nom. (Scabiosa arvensis Linn.). Europe.

\*bidentata Raf. Aut. Bot. 90. 1840, descr. Spain. ciliata Raf. Fl. Tellur. 1.c., nom. (Scabiosa ciliata Spreng.).

dichotoma Raf. 1.c., nom. (Scabiosa dichotoma Ucria). Iberian Peninsula, Sicily.

\*integrifolia Raf. Aut. Bot. 89. 1840, nom. (Scabiosa integrifolia Roth). Switzerland, Bavaria=S. arvensis Linn. \*lancifolia Raf. op. cit. 90, descr. (Scabiosa australis Wulfen.).

Styria, Istria. TEREIPHAS Raf. Fl. Tellur. 4:95. 1836 [1838], descr.= Scabiosa Linn.

rutefolia Raf. ex Jacks\*. Ind. Kew. 2:1046. 1895 (Scabiosa

rutaefolia Vahl). Mediterranean region.
urceolata Raf. Fl. Tellur., l.c., nom. (Scabiosa urceolata Desf.). Mediterranean region=S. rutaefolia Vahl.

THLASIDIA Raf. Fl. Tellur. 4:96. 1836 [1838], descr.= Scabiosa Linn.

bidens Raf. 1.c., nom. (Scabiosa bidens Sibth. & Sm.). Asia Minor.

TREMASTELMA Raf. Fl. Tellur. 4:96. 1836 [1838], descr. = Scabiosa Linn.

brachiata Raf. 1.c., descr. (Scabiosa brachiata Sibth. & Sm.; Knautia palestina Linn.). Asia Minor=Scabiosa palaestina (Linn.) D. Dietr.

sibthorpi Raf. 1.c., descr. (Scabiosa sibthorpiana Sibth. &.

Sm.). Cyprus.

XETOLA Raf. Fl. Tellur. 4:95. 1836 [1838], descr.=Cephalaria Schrad. (1814).

transylvanica Raf. 1.c., nom. (Scabiosa transylvanica Linn.). Europe = Cephalaria transylvania (Linn.) Schrad.

trenta Raf. 1.c., nom. (Scabiosa trenta Hacq.; Scabiosa hacquetii Lam.). Europe=Cephalaria transylvanica (Linn.) Schrad.

### CUCURBITACEAE

ARKEZOSTIS Raf. New Fl. N. Am. 4:100. 1836 [1838], descr.; Good Book 46. 1840, nom. = Cayaponia Silva Manso (1836), nom. conserv. (Arkezostis Raf., 1836 [1838]).

quinqueloba Raf. New Fl. l.c., descr.; Aut. Bot. 16. 1840, nom. (Boykinia trispora Nutt.). Alabama, Georgia, Florida = Cayaponia boykinii (Torr. & Gray) Cogn.

\*BOYKINIA Nutt. ex Raf. New Fl. N. Am. 4:100. 1836 [1838],

nom., non Boykinia Nutt. (1834) = praec.

†trispora Wray & Nutt. ex Raf. l.c., nom. sub Arkezostis Raf.; Aut. Bot. 16. 1840, nom. sub Arkezostis Raf. North America—Boykinia trispora Nutt. ex Arn. Hook. Jour. Bot. 3:276. 1840, nom.=praec.

MELOTHRIA Linn.

\*alba Raf. Western Minerva 42. 1821, nom., iter. Fox, Science II. 12:213. 1900. Missouri. edulis Raf. New Fl. N. Am. 4:15. 1836 [1838], descr. nom.

edulis Raf. New Fl. N. Am. 4:15. 1836 [1838], descr. nom. alt. Melothria pendula Linn. West Indies.

nigra Raf. Ann. Nat. Ann. Synop. 15. 1820, descr.; Western Minerva 42. 1821, nom., iter. Fox, Science II. 12:213. 1900; First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom.; Med. Fl. 2:242. 1830, nom., nota.; Herb. Raf. 62. 1833, nom.; Act. Soc. Linn. Bordeaux 6:267. 1834, nom., nota.; New Fl. N. Am. 4:14. 1836 [1838], descr. Kentucky, Tennessee, Carolina=M. pendula Linn. punctata Raf. New Fl. N. Am. 4:15. 1836 [1838], descr. Louisiana=M. pendula Linn.

Louisiana=M. pendula Linn.

repanda Raf. op. cit. 14, descr. Arkansas=M. pendula Linn. \*sessilis Raf. op. cit. 101, nom. sub Arkezostis quinqueloba Raf. Georgia, Florida.

MICRAMPELIS Raf. Med. Repos. II. 5:350. 1808, descr.; Jour. Bot. (Paris) 2:167. 1809, descr. = Echinocystis Torr. & Gray (1840), nom. conserv. (Micrampelis Raf., 1808). echinata Raf. Il.cc., descr.; A. Gray, Am. Jour. Sci. 40:226.

1841, nom. Pennsylvania = Echinocystis lobata (Michx.) Torr. & Gray.

NEUROSPERMA Raf. Am. Monthly Mag. Crit. Rev. 4:207. 1819, nom. = seq.

NEVROSPERMA Raf. Am. Monthly Mag. Crit. Rev. 4:40. 1818, descr.; Jour. Phys. Chim. Hist. Nat. 89:101. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 240. 1820, descr.; Spreng. Neue Entdeck. 1:144. 1820, descr.=Momordica Linn.

\*balsamina Raf. Med. Fl. 2:245. 1830, nom. (Momordica

balsamina Linn.).

cuspidata Raf. Am. Monthly Mag. Jour. Phys., Isis, et Neue Entdeck. Il.cc., descr.; Act. Soc. Linn. Bordeaux 6:267. 1834, nom., nota. Louisiana = Momordica balsamina Linn. OZODYCUS Raf. Atl. Jour. 1:145. 1832, descr. = Cucurbita

Linn.

perennis Raf. l.c., nom. (Cucumis perennis E. James). Rocky Mountains = Cucurbita foetidissima H.B.K.

SICYOS Linn.

acuta Raf. Fl. Ludovic. 113. 1817, descr. (Cucurbitacée Rob. Voy. Louis. 3:518. 1807). Louisiana = Sicyos angulata Linn.

# CAMPANULACEAE

BENAUREA Raf. Fl. Tellur. 2:77. 1836 [1837], descr.=Musschia Dum. (1823).

sempervirens Raf. op. cit. 78, descr. (Campanula aurea Linn.). Madeira=Musschia aurea (Linn.) Dum.

\*BLEPHEURIA Raf. Fl. Tellur. 2:80. 1836 [1837], nom. sub
Pentrophis Raf.=Campanula Linn.
BOLELIA Raf. Atl. Jour. 1:120. 1832, nom. nov. Clintonia
Dougl. ex Lindl. (1829), non Raf. (1818); Herb. Raf. 48. 1833, nom. (Clintonia Dougl.) = Downingia Torr. (1857), nom. conserv. (Bolelia Raf., 1832; Gynampsis Raf., 1833, 1837; Wittea Kunth, 1850).

\*flexuosa Raf. Herb. Raf. 1.c., nom. alt. Gynampsis flexuosa Raf. [Clintonia elegans Dougl. ex Lindl.]. Western North

America = Downingia elegans (Dougl.) Torr.

CAMPANULA Linn.

angulata Raf. Fl. Ludovic. 55. 1817, descr. (Campanula Rob. Voy. Louis. 3:422. 1807). Louisiana=? Specularia perfoliata Linn.

\*puloides Raf. Herb. Raf. 51. 1833, nom. Rocky Mountains

or Oregon.

CODIPHUS Raf. Fl. Tellur. 2:77. 1836 [1837], descr.=Prismatocarpus L'Hérit. (1788).

nitidus Raf. 1.c., descr. (Prismatocarpus nitidus L'Hérit. Sert. Angl. 2. t. 3. 1788; Campanula prismatocarpa Ait.; Hook. Bot. Mag. 54: t. 2733. 1827). South Africa. CONCILIUM Raf. Fl. Tellur. 2:78. 1836 [1837], descr.=Light-

footia L'Hérit. (1788).

pedunculare Raf. 1.c., descr. (Campanula fruticosa Linn.).

South Africa=Lightfootia fruticosa (Linn.) Druce (L. subulata L'Hérit.).

DECAPRISMA Raf. Fl. Tellur. 2:78. 1836 [1837], descr.= Campanula Linn.

cespitosa Raf. 1.c., descr. (Campanula caespitosa Scop. Fl. Carniol. ed. 2, 1:143. t. 4. 1772). Southern Europe. †GYNAMPSIS Raf. Herb. Raf. 48, 52. 1833, nom. nov. Clintonia Dougl. ex Lindl. (1829), non Raf. (1818); Fl. Tellur. 3:5. 1836 [1837], nom.; Aut. Bot. 14, 58. 1840, nom.= Downingia Torr. (1857), nom. conserv. (Bolelia Raf., 1832; Gynampsis Raf., 1833, 1837; Wittea Kunth, 1850).

\*flexuosa Raf. Herb. Raf. Il.cc.; Aut. Bot. 14, nom. (Clintonia [elegans Dougl. ex Lindl.]). Oregon=Downingia

elegans (Dougl.) Torr. HECALE Raf. Fl. Tellur. 2:79. 1836 [1837], descr.=Wahlenbergia Schrad. (1814), nom. conserv. (Cervicina Del., 1813). lobelioides Raf. 1.c., descr. (Campanula lobelioides Linn. f.). Madeira = Wahlenbergia lobelioides (Linn. f.) Link (W. pendula Schrad.).

IREON Scop.=Prismatocarpus L'Hérit. (1788). \*ciliatum Raf. Sylva Tellur. 138. 1838, descr. South Africa. \*LIFUTIA Raf. Fl. Tellur. 1:86, 92. 1836 [1837], nom. nov. Lightfootia L'Hérit. (1788).

\*LIGHTFOATIA Raf. Fl. Tellur. 1:92. 1836 [1837], nom., sphalm.=Lightfootia L'Hérit. (1788).

LOBELIA Linn.

\*amena Raf. First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom.=L. amoena Michx. Southeastern United States. cladlomesa Raf. New Fl. N. Am. 2:17. 1836 [1837], descr.

falcata Raf. New Fl. N. Am. 2:18. 1836 [1837], descr. Lakes Erie and Ontario=L. kalmii Linn.

fistulosa Raf. l.c., descr., non Vell. (1827). Alabama.

†incurva Raf. Herb. Raf. 79. 1833, nom.; New Fl. N. Am. 2:18. 1836 [1837], descr. Florida.

inflata Linn. Eastern North America. var. albiflora Raf. Med. Fl. 2:23. 1830, nom.; Sat. Eve. Post 10(541):[4], 1831; Casket 1832:42. 1832, nom.

angustifolia Raf. 11.cc., nom. elatior Raf. Il.cc., nom. simplex Raf. 11.cc., nom.

microphylla Raf. Atl. Jour. 1:147. 1832, descr. Florida, Louisiana.

†nivea Raf. Ann. Nat. Ann. Synop. 15. 1820, deser.; First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom.; Herb. Raf. 61. 1833, nom. Kentucky.

nudicaulis Raf. Atl. Jour. 1:147. 1832, descr., non Lam. (1791). Florida.

tpaniculata Raf. Herb. Raf. 66. 1833, nom.; New Fl. N. Am. 2:18. 1836 [1837], descr., non Linn. (1753). Alleghany Mountains.

parvifolia Raf. op. cit. 52, nom.; New Fl. 1.c., descr., non Berg. (1767), nec R. Br. (1810). Appalachian Mountains.
\*procumbens Raf. Herb. Raf. 66. 1833, nom. Appalachian Mountains.

\*sparsiflora Raf. Herb. Raf. 68, nom. Alleghany Mountains. texensis Raf. Atl. Jour. 1:176. 1833, descr.; Herb. Raf. 20. 1833, descr. Texas=L. cardinalis Linn. subsp. graminea (Lam.) McVaugh.

LOREIA Raf. Fl. Tellur. 3:82. 1836 [1837], descr. = Campanula Linn

baldensis Raf. 1.c., descr. (Campanula baldensis Balb.; C. lorei Pollini; Sims Bot. Mag. 52: t. 2581. 1825). Europe
 MINDIUM Adans.; Raf. Fl. Tellur. 2:78. 1836 [1837], descr.

=Canarina Linn. canariense Raf. op. cit. 79, descr. (Campanula canariensis Linn.; Canarina campanula Lam.). Canarina canariensis (Linn.) O. Kuntze. Canary Islands=

\*PALAENO Raf. Fl. Tellur. 2:80. 1836 [1837], nom.=Campan-

ula Linn. PENTROPIS Raf. Fl. Tellur. 2:80. 1836 [1837], descr.= Campanula Linn.

saxatilis Raf. l.c., descr. (Campanula saxatilis Linn.). Crete. **PETALOSTIMA** Raf. Fl. Tellur. 2:79. 1836 [1837], descr.= Wahlenbergia Schrad. (1814), nom. conserv. (Cervicina Del., 1813).

capensis Raf. 1.c., descr. (Campanula capensis Linn.; Sims Bot. Mag. 20: t. 782. 1804). South Africa=Wahlenbergia

capensis (Linn.) A. DC.

PILOREA Raf. Fl. Tellur. 2:80. 1836 [1837], descr.=Wahlenbergia Schrad. (1814), nom. conserv. (Cervicina Del., 1813). graminifolia Raf. I.c., descr. (Campanula graminifolia Linn.).
Italy, Sicily=Wahlenbergia graminifolia (Linn.). A. DC.

\*PLEURIMA Raf. Fl. Tellur. 2:80. 1836 [1837], nom.=Campanula Linn.

\*PRISMOCARPA Raf. Fl. Tellur. 2:80. 1836 [1837], nom.=

Prismatocarpus L'Hérit.

#SIPHILARIA Raf. Am. Monthly Mag. Crit. Rev. 4:194. 1819, nom., nota, subgen. Lobelia Linn. (Type Lobelia siphilitica Linn.) = Lobelia Linn.

\*STEPHALEA Raf. Fl. Tellur. 2:80. 1836 [1837], nom.=Campanula Linn.

TRIODALLUS Raf. ex DC. Prodr. 7:489. 1839, nom. in syn. sub. Specularia (Heist.) DC.; Nutt. Trans. Am. Philos.

sub. Specularia (Heist.) DC.; Nutt. Trans. Am. Finlos. Soc. II. 8:255. 1843, nom. in syn. = seq.

\*rupestris Raf. ex DC. op. cit. 491, sub Specularia perfoliata (Linn.) A. DC.=T. perfoliata (Linn.) Nieuwl. = Specularia perfoliata (Linn.) A. DC.

TRIODANIS Raf. New Fl. N. Am. 4:67. 1836 [1838], descr. = Dysmicodon Nutt. (1843) = Specularia (Heist.) DC. (1830); see McVaugh, Wrightia 1:13-52. 1945, and Fernald, Rhodora 48:209-214. 1946.

rupestris Raf. l.c., descr.; op. cit. 108, nom. nota; Aut. Bot. 16. 1840, nom. Maryland=Specularia perfoliata (Linn.) A. DC. (Triodanis perfoliata Nieuwl.).

scabra Raf. New Fl. l.c., descr.; Aut. Bot. l.c., nom. Tennessee and Arkansas=? Triodanis leptocarpa Nieuwl.= Specularia leptocarpa (Nutt.) A. Gray.

#### GOODENIACEAE

GOODENIA Sm.

\*levigata Raf. First Cat. Bot. Gard. Transylv. Univ. 21.

1824, nom.=G. laevigata Curt.

SCEVOLA Raf. Sylva Tellur. 126. 1838, nom. = Scaevola Linn. (1771), nom. conserv. (Lobelia Adans., 1763, non Linn., 1753).

#### STYLIDIACEAE

\*PHYLLACNE Raf. Fl. Tellur. 1:53. 1836 [1837], nom.=Phyllachne J. R. & G. Forst. (1776).

### COMPOSITAE

ACHILLEA Linn.

gracilis Raf. Atl. Jour. 1:177. 1833, descr.; Herb. Raf. 22. 1833, descr.; New Fl. N. Am. 1:50. 1836, descr. Arkansas, Texas.

millefolium Linn.; Raf. New Fl. N. Am. l.c., nom., nota.

var. carnea Raf. l.c., descr. pumila Raf. l.c., descr. rosea Raf. l.c., descr.

tenuifolia Raf. l.c., descr.

occidentalis Raf. ex DC. Prodr. 6:24. 1827, nom. in syn.

(A. millefolium Linn. var. occidentalis DC. l.c.); Rydb. N.

Am. Fl. 34:224. 1916 (A. setacea Schwein. (1824), non

Waldst. & Kit. (1802). New England to Colorado and Florida.

sicula Raf. Précis Découv. Somiol. 40. 1814, descr.; Jour. Bot. (Desv.) 4:271. 1814, descr.; Chloris Aetn. 11. 1815,

nom. Sicily.

ACMELLA Richard (1807) = Spilanthes Jacq. (1760).

\*alternifolia Baldw. ex Raf. New Fl. N. Am. 4:70. 1836
[1838] nom. in syn. sub Aimorra acuminata Raf. Florida.
flavicaulis Raf. op. cit. 1:52. 1836, descr. Cumberland Mountains, eastern Kentucky = Heliopsis helianthoides (Linn.)

Sweet.

\*lanceolata Raf. l.c., descr. Cumberland Mountains. nudicaulis Raf. l.c., descr. Cumberland Mountains.

nuttaliana Raf. l.c., descr. (Acmella occidentalis Nutt.). Louisiana=Spilanthes americana (Mutis) Hieron. var. repens (Walt.) A. H. Moore (Spilanthes repens Michx.). parvifolia Raf. l.c., descr. Cumberland Mountains.

ACTARTIFE Raf. Aut. Bot. 20. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:92. 1921, nom. (Type Boltonia asteroides

L'Hérit) = Boltonia L'Hérit. (1788).

\*angustifolia Raf. op. cit. 21, descr. (Boltonia glastifolia sensu Nutt.). Delaware=Boltonia asteroides (Linn.) L'Hérit.

cuneifolia Raf. op. cit. 20, descr.; Pennell, 1.c., nom. Florida = Boltonia asteroides (Linn.) L'Hérit.

\*ACTICARNOPUS Raf. New Fl. N. Am. 2:45. 1836 [1837], nom. sub Diplostelma Raf., sphalm.—Actinocarpus Raf. fide Raf. op. cit. 95; 4:107. 1836 [1838] = Chaetanthera Nutt. (1834), non Ruiz & Pavon (1794), = Diplostelma Raf. (1837) = Chaetopappa DC. (1836).

ACTIMERIS Raf. Am. Monthly Mag. Crit. Rev. 4:195. 1819, nom. nov. Actinomeris Nutt.; Jour. Phys. Chim. Hist. Nat. 89:260. 1819, nom. (Actinomeris Nutt.); New Fl. N. Am. 1:60. 1836, nom., nota (Actinomeris Nutt.) = Actinomeris Nutt. (1818), nom. conserv. (Ridan Adans., 1763).
\*alata Raf. New Fl. N. Am. 1:61. 1836, nom. (Actinomeris alata Nutt.). Mexico=Verbesina occidentalis Walt.

\*ellioti Raf. l.c., descr. (Actinomeris helianthoides sensu Ell.).

Georgia, Alabama = seq. \*helianthoides Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom.; New Fl. N. Am. l.c., descr. [Actinomeris heli-anthoides Nutt.]. Ohio to Louisiana=Verbesina helian-thoides Michx. (Pterophyton helianthoides Alexander).

\*latifolia Raf. Herb. Raf. 68. 1833, nom. Alleghany Mountains.

\*squarrosa Raf. New Fl. N. Am. 1:61. 1836, descr. (Actinomeris squarrosa Nutt.; Coreopsis alternifolia Linn.). Kentucky to Florida=Actinomeris alternifolia (Linn.) DC. (Ridan alternifolia Britton).

ACTIMERIS (continued).

var. pauciflora Raf. 1.c., descr.

procera Raf. I.c., descr. (Coreopsis procera Ait.) =
Actinomeris alternifolia (Linn.) DC.

\*ACTINOCARPUS Raf. l.c., descr.

\*ACTINOCARPUS Raf. New Fl. N. Am. 2:95. 1836 [1837]

nom.; op. cit. 4:107. 1836 [1838], nom., non R. Br. (1810) =

Chaetanthera Nutt. (1834), non Ruiz & Pavon (1794) =

Diplostelma Raf. (1837) = Chaetopappa DC. (1836).

ACTINOMERIS Nutt. (1818), nom. conserv. (Ridan Adans.,

1763).

ellioti Raf. ex Jacks\*. Ind. Kew. 1:35. 1893 (Actimeris ellioti Raf.; Actinopteris helianthoides sensu Ell.). Georgia, Alabama = Verbesina helianthoides Michx. (Pterophyton helianthoides Alexander).

ACTIPSIS Raf. Fl. Tellur. 2:43. 1836 [1837], descr.=Solidago

glomerata Raf. 1.c., descr. (Solidago glomerata Michx.). North America.

squamosa Raf. 1.c., descr. [Solidago squamosa Muhl.]. North

ACTISPERMUM Raf. New Fl. N. Am. 1:61. 1836, nom. nov. Actinospermum Ell. (1824) = Balduina Nutt. (1818) [Baldwinia auct.], non Baldwinia Raf. (1818), nom. conserv. (Mnesiteon Raf., 1817; Endorima Raf., 1819).

\*multiflorum Raf. op. cit. 62, descr. [Actinospermum multiflorum Ell.; Balduina multiflora Nutt.]. Southeastern United States = Balduina angustifolia (Pursh) Robinson.

ADVENTINA Raf. New Fl. N. Am. 1:67. 1836, descr.; Good. Book 44. 1840, nom. = Galinsoga Ruiz & Pavon (1794). ciliata Raf. 1.c., descr. Philadelphia (Bartram's Garden) =

Galinsoga ciliata (Raf.) Blake, Rhodora 24:35. 1922 (G. aristulata Bicknell, 1916).

parviflora Raf. I.c., descr. Philadelphia (Bartram's Garden)
"Adventitious . . . near . . . Philadelphia. Probably a
Florida plant" = Galinsoga parviflora Cav.

AGATHYRUS Raf. ex Jacks\*. Ind. Kew. 1:55. 1893, sphalm.= Agathyrsus D. Don=Lactuca Linn.

AGLOTOMA Raf. Fl. Tellur. 2:44. 1836 [1837], descr. = Aster Linn.

multiflora Raf. ex Jacks\*. Ind. Kew. 1:59. 1893 (Aster multi-

florus Ait.). North America.

AGOSERIS Raf. Fl. Ludovic. 58. 1817, nom., nota (Troximon sp.); Jour. Phys. Chim. Hist. Nat. 89:100. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 239. 1820, descr. (Troximon sensu Pursh, 1814, non Gaertn., 1791). \*glauca Raf. Herb. Raf. 39. 1833, nom. (Troximon glaucum

Nutt.). Western North America (Agoseris glauca Greene,

1891).

\*undulata Raf. 1.c., nom. (Troximon cuspidatum Pursh). Western North America (*Nothocalais cuspidata* Greene). \*AIMORA Raf. Good Book 46. 1840, nom., sphalm.=seq.

AIMORRA Raf. New Fl. N. Am. 4:70. 1836 [1838], descr.= Ouid?

acuminata Raf. 1.c., descr.; Aut. Bot. 21. 1840, nom. Florida. #ALBIGULA Raf. Fl. Tellur. 2:42. 1836 [1837], descr., subgen. Solidago Linn. (Type Solidago bicolor Linn.).

†ALISETA Raf. Herb. Raf. 79. 1833, nom.; New Fl. N. Am. 2:22. 1836 [1838], descr.; Good Book 45. 1840, nom. Quid? †Plantaginea Raf. Herb. Raf. et New Fl. Il.cc., nom., descr. Florida.

ALKIBIAS Raf. Fl. Tellur. 4:119. 1836 [1838], descr. = Vernonia Schreb. (1791), nom. conserv. (Behen Hill, 1762). hastata Raf. 1.c., descr. (Staehelina hastata Vahl; Chrysocoma spathulata Forsk.). Arabia=Vernonia atriplicifolia Jaub. & Spach.

mucronata Raf. ex Jacks\*. Ind. Kew. 1:76. 1896 (Chrysocoma mucronata Forsk.). Egypt, Arabia = Iphiona mucronata (Forsk.) Aschers. & Schweinf. (I. juniperifolia Cass.).

ovata Raf. ex Jacks\*. 1.c. (Chrysocoma ovata Forsk.) Arabia. AMBROSIA Linn.

\*arenaria Raf. Herb. Raf. 69. 1833, nom. Long Island, New

Jersey, Chesapeake Bay.

\*ANACTIS Raf. New Fl. N. Am. 1:17. 1836, nom., nota (Aster discoideus Ell.); op. cit. 4:69. 1836 [1838], nom., nota; Fl. Tellur. 2:44. 1836 [1837], descr. (Aster discoideus Ell.), non Anactis Cass. (1827)=Solidago Linn. (Brintonia Cass.) Greene, 1895).

\*discoidea Raf. New Fl. N. Am. 4:69. 1836 [1838], nom. (Aster discoideus Ell.) = Solidago discoidea (Ell.) Torr.

& Gray. (Brintonia discoidea Greene).

†glabra Raf.44 Fl. Tellur. 2:44. 1836 [1837], descr. Ala-

†pilosa Raf. l.c., descr. Carolina. #ANAXETON Raf. Fl. Tellur. 4:118. 1836, descr., subgen. 

\*ANOMERIS Raf. New Fl. N. Am. 1:61. 1836, nom., nota (Actinomeris squarrosa Nutt. var. alba Nutt.=Actinomeris Nutt. (1818).

ANTHEMIS Linn.

†cotuloides Raf. Med. Fl. 1:46. 1828, nom., nota, iter. Man. Med. Bot. 46. 1841; DC. Prodr. 6:13. 1838, nom. in syn. North America=Anthemis cotula Linn.

APLACTIS Raf. Fl. Tellur. 2:42. 1836 [1837], descr.=Solidago Linn. (Chrysoma Nutt., 1834).

paniculata Raf. l.c., nom. (Solidago pauciflosculosa Michx.). North America.

APLINA Raf. Fl. Tellur. 4:119. 1836 [1838], descr.=Staehelina Linn.

fuscata Raf. 1.c., descr. (Staehelina unifloscula Sibth. & Sm.). Greece

\*APTILON Raf. New Fl. N. Am. 4:106. 1836 [1838], nom. nov. Apogon Ell. = Serinia Raf. (1817).

ARNICA Linn.

brevicaulis Raf. New Fl. N. Am. 2:23. 1836 [1837], descr. Alabama=Arnica acaulis (Walt.) Britton, Stearns & Pog-

ARNOGLOSSUM Raf. Fl. Ludovic. 64. 1817, descr.; Am. Monthly Mag. Crit. Rev. 4:188. 1819, nom. = Cacalia Linn.

(Mesadenia Raf. 1832).
plantagineum Raf. op. cit. 65, descr. (Chrysocome à feuilles de Plantain Rob. Voy. Louis. 3:435. 1807). Louisiana — Cacalia tuberosa Nutt. (1818).

ARTEMISIA Linn.

amorpha Raf. Fl. Ludovic. 69. 1817, descr. (Artemisia 2 Rob. Voy. Louis. 3:440. 1807). Louisiana. \*aurea Raf. Herb. Raf. 52. 1833, nom. Rocky Mountains or

Oregon.

\*cinerea Raf. op. cit. 63, nom. Kentucky or Illinois. \*globulifera Raf. op. cit. 52, nom. Rocky Mountains or Oregon.

ASTER Linn.

\*flammuloides Raf. Herb. Raf. 69. 1833, nom. Long Island,

\*New Jersey, Chesapeake Bay.

\*heterophylus Raf. op. cit. 66, nom. Appalachian Mountains.

\*hyssopifolius Raf. Atl. Jour. 1:17. 1832, descr. Illinois.

leucanthemus Raf. Med. Repos. II. 5:359. 1808, descr.; Jour.

Bot. (Paris) 1:226. 1809, descr. Virginia.

\*maritimus Raf. Fl. Tellur. 2:46. 1836 [1837], nom. sub

Fimbristima Raf.

\*novanglia Raf. Med. Fl. 2:198. 1830, nom.=Aster novae-

angliae Linn. Eastern North America.
pratensis Raf. Fl. Ludovic. 67. 1817, descr. (Aster 5 à grandes fleurs Rob. Voy. Louis. 3:437. 1807). Louisiana.
\*radicosus Raf. Herb. Raf. 66. 1833, nom. Appalachian Mountains.

\*squamosus Raf. Fl. Tellur. 2:46. 1836 [1837], nom. sub Fimbristima Raf.

BALDUINA Nutt. (1818); Raf. Am. Monthly Mag. Crit. Rev. 4:187, 195. 1819, nom., nota; Cincinnati Lit. Gaz. 3:28. 1824, nom.; New Fl. N. Am. 4:73. 1836, nom., nom. conserv.—Baldwinia Torr. & Gray, 1842 (Mnesteon Raf. 1817; Endorima Raf., 1819).

\*bicolor Raf. New Fl. N. Am. 1.c., descr.; Aut. Bot. 21. 1840, nom. Florida

nom. Florida.

\*lutea Raf. 1.c., nom. nov. Balduina uniflora Nutt. Southeastern United States (Endorima uniflora Barnhart).

\*multiflora Nutt. Gen. Am. 2:175. 1818; Raf. op. cit. 1:61. 1836, nom. Southeastern United States (Baldwinia multiflora A. Gray, 1884) = Balduina angustifolia (Pursh) Robin-

\*uniflora Nutt. 1.c.; Raf. op. cit. 73, nom.; Herb. Raf. 48. 1833, nom. Southeastern United States (Endorima uniflora Barnhart).

<sup>44</sup> This and the next species are entered in Index Kewensis under Anactis Cass.

\*BALDUINIA Raf. Jour. Phys. Chim. Hist. Nat. 89:260. 1819, nom.=praec.

BALDWINIA Torr. & Gray, Fl. N. Am. 2:388. 1842=Balduina Nutt. (1818), nom. conserv., vide supra.

bicolor Raf. ex Jacks\*. Ind. Kew. 1:265. 1893 (Balduina bicolor Raf.). Florida.

lutea Raf. ex Jacks\*. l.c. (Balduina lutea Raf.). North America=Balduina uniflora Nutt.

\*BALTIMOREA Raf. Princ. Somiol. 26. 1814, nom. nov. Baltimora Linn.; Fl. Tellur. 1:83. 1836 [1837], nom. (Baltimora Linn.).

BARKHAUSIA Moench=Crepis Linn.

\*bursifolia Raf. Chloris Aetn. 6. 1815, nom. [Crepis bursifolia Linn.]. Sicily=Barkhausia bursifolia Spreng. (1826) =Crepis bursifolia Linn.

BELLIS Linn.

ciliata Raf. New Fl. N. Am. 2:24. 1836 [1837], descr. (Bellis integrifolia sensu Hook. Bot. Mag. **62**: t. 3455. 1835). Texas =Bellis integrifolia Michx.=Astranthium integrifolium (Michx.) Nutt. var. triflora Raf. 1.c., descr.

integrifolia Michx. (Eclipta integrifolia Spreng.; Brachycome xanthocomoides Less.). Tennessee=Astranthium integrifolium (Michx.) Nutt.

var. carnea Raf. 1.c., descr. elata Raf. 1.c., descr.

pumila Raf. l.c., descr.
\*maritima Raf. Chloris Aetn. 6. 1815, nom. Sicily.

\*nudicaulis Raf. op. cit. 11, nom. Sicily.
†nutans Raf. Herb. Raf. 61. 1833, nom.; New Fl. N. Am.
2:23. 1836 [1837], descr. Western Kentucky.

†parviflora Raf. Il.cc., nom., descr. Kentucky. BINDERA Raf. New Fl. N. Am. 4:71. 1836 [1838], descr. Quid?

ciliata Raf. I.c., descr.; Aut. Bot. 21. 1840, nom. Louisiana or

#BRACHYACTIS Raf. Fl. Tellur. 2:42. 1836 [1837], descr., subgen. Solidago Linn. (Type Solidago juncea Ait.)=Solidago Linn.

\*BRACHYPODA Raf. New Fl. N. Am. 2:43. 1836 [1837], nom. nov. provis., gen. vel subgen., sub Paleista Raf. = Eclipta Linn. (1771), nom. conserv. (Eupatoriocephalacron Adans., 1763).

\*prostrata Raf. 1.c., nom. provis. sub Paleista prostrata Raf.= Eclipta alba (Linn.) Hassk.

BREPHOCTON Raf. Fl. Tellur. 2:49. 1836 [1837], dcscr.= Baccharis Linn.

cuneatum Raf. 1.c., descr. ("Erigeron do L.", i.e. E. tricuneatum Linn. f.). Mexico.

#BREVIGULA Raf. Fl. Tellur. 2:42. 1836 [1837], descr., subgen. Leioligo Raf. (Type Leioligo cesia Raf.; Solidago caesia Linn.) = Solidago Linn.

BUPHTHALMUM Linn. crassifolium Raf. Speech. Sci. 1:192. 1814, descr.; Jour. Bot. (Desv.) 4:277 (err. 177). 1814, nom.; Précis Découv. Somiol. 1814, nom. (p. 4 of cover). Sicily=Odontospermum

maritimum (Cass.) Schultz-Bip.

CACALIA Linn. macrophylla Raf. Med. Repos. II. 5:354. 1808, nom.; Bot. (Paris) 2:174. 1809, nom. Central Atlantic United States.

paniculata Raf. Ann. Nat. Ann. Synop. 14. 1820, descr.; First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom.; New Fl. N. Am. 4:79. 1836 [1838], nom. Kentucky=C. tuberosa Nutt. (1818).

pteranthes Raf. Ann. Nat. et First Cat. 11.cc., descr., nom. Indiana, Illinois = C. tuberosa Nutt. (1818).

pteranthus Raf. ex Jacks\*. Ind. Kew. 1:366. 1893=praec. pubescens Raf. Fl. Ludovic. 61. 1817, descr. (Cacalia 1 Rob. Voy. Louis. 3:432. 1807). Louisiana=? Eupatorium serotinum Michx.

CACOTANIS Raf. New Fl. N. Am. 2:40, nom., 43, descr., 1836 [1837] = Boltonia L'Hérit. (1788).

ciliata Raf. op. cit. 44, descr. (Eclipta ciliata Raf.). Louisiana =Boltonia diffusa Ell. (1823).

CAENOTUS (Nutt.) Raf. Fl. Tellur. 2:50. 1836 [1837], descr. [Erigeron Linn. subg. Caenotus Nutt.]=Leptilon Raf. (1837)=Erigeron Linn.

\*altissimus Raf. 1.c., nom. [North America].

canadensis Raf. ex Jacks\*. Ind. Kew. 1:370. 1893 (Erigeron canadensis Linn.). North America = Erigeron canadensis

\*diffusus Raf. Fl. Tellur. l.c., nom. [North America]. longifolius Raf. ex Jacks\*. Ind. Kew. 1.c. [Erigeron longi-folius Desf.]=Jasonia †longifolia (Desf.) Steud. Nomencl. 425. 1821; Cass. ex Jacks. Ind. Kew. 1:1251. 1893. Eastern North America fide Desfontaines; see Torr. & Gray, F1. N. Am. 2:180. 1841.

\*maritimus Raf. Fl. Tellur. l.c., nom. [North America]. pusillus Raf. ex Jacks\*. l.c. (Erigeron pusillus Nutt.). North America = E. canadensis Linn.

\*uniflorus Raf. Fl. Tellur. 1.c., nom. [North America].

CALENDULA Linn.
bicolor Raf. Car. Nuov. Gen. Sp. Sicil. 82. 1810, descr.; Stat. Gen. Sicil. 28. 1810, descr. Sicily.

fulgida Raf. op. cit. 83, descr.; 1.c., nom. Sicily.

parviflora Raf. 11.cc., descr., nom.; Chloris Aetn. 6. 1815,

undulata Raf. Car. Nuov. Gen. Sp. Sicil. 81. 1810, descr.; Stat. Gen. Sicil. 1.c., nom. (sphalm. hundulata); Chloris Aetn. 7. 1815, nom. Sicily.

CARADESIA Raf. New Fl. N. Am. 4:78, 80. 1836 [1838], nom. =? Eupatorium Linn.

pauciflora Raf. 1.c., nom. alt. Eupatorium pauciflorum Raf. Louisiana, Mississippi.

CARGILA Raf. Aut. Bot. 11. 1840, descr.; Pennell, Bull. Torr. Bot. Club 48:91. 1921, nom. (Cargilla Adans. 1763)= Melampodium Linn.

dichotoma Raf. 1.c., descr.; Pennell, 1.c., nom. South America =? Melampodium longifolium Cerv.

\*CAULOMA Raf. Atl. Jour. 1:163. 1832, descr.; Herb. Raf. 61. 1833, nom.; New Fl. N. Am. 1:61. 1836, nom. sub Actimeris Raf.; Life of Travels 68. 1836, nom.=Verbesina Linn.

\*tomentosa Raf. Atl. Jour. l.c., descr.; Herb. Raf. 61. 1833, nom. Kentucky=Verbesina helianthoides Michx.

\*CELESTINA Raf. Herb. Raf. 47. 1833, nom.=Coelestina Cass. (1817)=Ageratum Linn.

\*cerulea Raf. 1.c., nom. = Coelestina caerulea Cass. = Ageratum corymbosum Zucc. Mexico.

\*villosa Raf. I.c., descr.; op. cit. 52, nom. Rocky Mountains or Oregon.

\*CENOTIS Raf. New Fl. N. Am. 1:31. 1836, nom. = seq. \*canadensis Raf. 1.c., nom.=Erigeron canadensis Linn. North America.

\*CENOTUS Raf. Fl. Tellur. 2:44. 1836 [1837], nom. sub Mesoligus Raf. = Caenotus Raf. = Erigeron Linn.

CENTAUREA Linn.

\*gracilis Raf. Chloris Aetn. 11. 1815, nom. Sicily.

\*CEREOPSIS Raf. Cincin. Lit. Gaz. 2:28. 1824, nom. sub Lophactis uniflora Raf., sphalm.=Coreopsis Linn.

#CERULINIS Raf. Fl. Tellur. 2:46. 1836 [1837], descr., subgen. Diplopappus Cass.

CHAMAEPEUCE DC.=Cirsium Mill. (1754).

imbricata Raf. ex Jacks\*. Ind. Kew. 1:504. 1893 (Staehelina chamaepeuce Linn.). Crete, Greece=Cirsium chamaepeuce (Linn.) Ten.

\*CHAMEPEUCE Raf. Fl. Tellur. 4:118. 1838, descr. = Chamaepeuce DC. (1827)=Cirsium Mill. (1754).

\*imbricata Raf. l.c., descr. (Staehelina chamaepeuce Linn.). Crete, Greece=Cirsium chamaepeuce (Linn.) Ten.

\*CHETANTHERA Raf. New Fl. N. Am. 2:95. 1836 [1837], nom., op. cit. 4:107. 1836 [1838], nom.=Chaetanthera Nutt. (1834), non Ruiz & Pavon (1794) = Chaetopappa DC. (1836).

\*asteroides Raf. 1.c. 2:95. nom. [Chaetanthera asteroides Nutt.] = Chaetopappa asteroides DC. Central United States.

\*CHETOPAPPUS Raf. New Fl. N. Am. 2:95. 1836 (1837), nom. in obs., nom. nov. Chaetanthera Nutt. (1834), non Ruiz & Pav. (1794) = Chaetopappa DC. (1836).

CHONDROPHORA Raf. New Fl. N. Am. 4:79. 1836 [1838], nom., nota sub Mesadenia Raf. (Chrysocoma nudata Michx.) =Bigelowia DC. (1836), non Sm. (1819), nec Spreng. (1821), nom. conserv. (Chondrophora Raf. 1838).

CHRYSANTHEMUM Linn.

angustifolium Raf. Atl. Jour. 1:178. 1833, descr.; Herb. Raf. 25. 1833, descr. Texas. \*cespitosum Raf. First Cat. Bot. Gard. Transylv. Univ. 13.

1824, nom. Kentucky.

HRYSOCOMA Linn.

\*glauca Raf. Herb. Raf. 79. 1833, nom. Alabama or Florida.
heterophylla Raf. Fl. Ludovic. 64. 1817, descr. (Chrysocome 2 Rob. Voy. Louis. 3:435. 1807). Louisiana.
purpurea Raf. I.c., descr. (Grand Chrysocome Rob. Voy.
Louis. 3:434. 1807). Louisiana=Liatris sp.

\*spatulata Raf. Fl. Tellur. 4:119. 1836 [1838], nom. sub
Alkibias Raf., sphalm.=Chrysocoma spathulata Forsk.=
Vernonia atriplicifolia Jaub. & Spach (V. spathulata Hochst.,
1867, non Schulz-Bip., 1854). Arabia.
CICHERIA Raf. Cincinnati Lit. Gaz. 1:11. 1824, nom.=

\*CICHERIA Raf. Cincinnati Lit. Gaz. 1:11. 1824, nom.=

Cichorium Linn.

CIRSIUM Adans. lutescens Raf. Med. Repos. II. 5:354. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. Central Atlantic United States. CLIPTERIA Raf. New Fl. N. Am. 2:44. 1836 [1837], descr.=

Eclipta Linn. (1771), nom. conserv. (Eupatoriocephalacron Adans., 1763). dichotoma Raf. New Fl. 1.c., descr. Western Tennessee=

Eclipta alba (Linn.) Hassk.

CNICUS Linn. \*edulis Raf. Herb. Raf. 54. 1833, nom. Northwestern United "Shanatauk" (Lewis & Clark). States, "Sh CONYZA Linn.

\*egyptiaca Raf. Fl. Tellur. 2:49. 1836 [1837], nom. sub Edemias Raf.=Conyza aegyptiaca Ait. Africa, Tropical Asia.

\*marilandica Raf. Fl. Ludovic. 150. 1817, nom.; Am. Monthly Mag. Crit. Rev. 2:268. 1818, nom.; Jour. Phys. Chim. Hist. Nat. 89:100. 1819, nom. sub Stylimnus Raf.; Isis von Oken 1820, 1: Lit. Anz. 239. 1820, nom. (Conysa marylandica Michx.). Eastern United States=Pluchea marylandica (Michx.) Cass.=P. camphorata (Linn.) DC.

COREOPSIS Linn.

Bet-Of-Sis Linn.

flexicaulis Raf. Med. Repos. II. 5:361. 1808, descr.; Jour. Bot. (Paris) 1:230. 1809, descr.; Herb. Raf. 67. 1833, nom. Southern New Jersey, Cumberland Mountains \*glauca Raf. Herb. Raf. 80. 1833, nom. Alabama or Florida. hirta Raf. Ann. Nat. Ann. Synop. 15. 1820, nom. sub Peramilar Ann. Mat. Ann. Synop. 15. 1820, nom. sub Peramilar Publisher Raf. Kontucky - Rudbecking triloha Linn.

bus hirtus Raf. Kentucky=Rudbeckia triloba Linn.

\*pentaria Raf. Ic., nom. Alabama or Florida.
scabra Raf. Fl. Ludovic. 72. 1817, descr. (Coreopsis 3 Rob.
Voy. Louis. 3:444. 1807). Louisiana.
\*shortiana Raf. Herb. Raf. 67. 1833, nom. Cumberland Moun-

\*tomentosa Raf. l.c., nom. Cumberland Mountains. \*tritoma Raf. l.c., nom. Cumberland Mountains. #CORYMBILIS Raf. New Fl. N. Am. 4:75. 1836 [1838], descr., subgen. Liatris Schreb. (1791).

CRENAMON Raf. New Fl. N. Am. 4:86. 1836 [1838], descr.= ? Leontodon Linn.

pectinatum Raf. 1.c., descr. Appalachian (Unaka) Mountains, North Carolina.

CRITONIA P. Browne=Eupatorium Linn. elliptica Raf. ex DC. Prodr. 5:178. 1836, nom. in syn. sub Eupatorium pubescens Muhl. Eastern United States=E. pubescens Muhl.

#CRITONIA Raf. Herb. Raf. 30. 1833, nom., subgen. Kuhnia Linn. (Type Kuhnia critonia Willd.)=Kuhnia Linn. CROPTILON Raf. Fl. Tellur. 2:47. 1836 [1837], descr.=Aplopappus Cass. (1826) = Haplopappus Cass., cor. Endl. (1837),

nom. conserv. (Hoorbeckia Cornel., 1817).

divaricatum Raf. 1.c., descr. (Chrysopsis divaricata Ell.). [Inula divaricata Nutt.]. Florida = Haplopappus divaricatus (Nutt.) A. Gray.

\*CYANANTHUS Raf. Anal. Nat. Tabl. Univ. 192. 1815, nom. nov. Cyanus Linn.=Centaurea Linn.

DASIORIMA Raf. Fl. Tellur. 2:43. 1836 [1837], descr.=Solidago Linn.

ellioti Raf. l.c., descr. (Solidago limonifolia sensu Ell.). South Carolina.

limonifolia Raf. 1.c., descr. (Solidago limonifolia Pers.). Eastern North America=Solidago sempervirens Linn.

mexicana Raf. 1.c., descr. (Solidago mexicana Linn.). Mexico. DASYRANTHUS Raf. ex Steud. Nomencl. ed. 2, 1:484. 1840, nom.=Gnaphalium Linn.

DECTIS Raf. Fl. Tellur. 2:43. 1836 [1837], descr.=Commi-

dendron DC. (1833). arborescens Raf. 1.c., nom. (Solidago arborescens Forst. f.). New Zealand=Olearia arborescens (Forst. f.) Cockayne & Laing (Olearia nitida Hook. f.).

decurrens Raf. 1.c., descr. (Solidago decurrens Lour.). Southern China=Solidago virgaurea Linn., sensu lat.; see Merr. Trans. Am. Philos. Soc. II. 24(2):384. 1935 (Amphiraphis leiocarpa Benth., Solidago virgaurea Linn. var. leiocarpa Mig.).

leucadendron Raf. 1.c., nom. (Solidago leucadendron Forst. f.). St. Helena=Senecio leucadendron (Forst. f.) Benth. &

Hook, f.

rugosa Raf. 1.c., nom. (Solidago spuria Forst.; Conyza rugosa Ait.?). St. Helena = Commidendron spurium (Forst.) DC. **DEINOSMOS** Raf. Fl. Tellur. 2:49. 1836 [1837], descr.=

Pulicaria Gaertn. (1791).

siculus Raf. l.c., descr. (Erigeron siculus Linn.). Sicily= Jasonia sicula DC.=Pulicaria sicula (Linn.) Moris.

\*DIANISTERIS Raf. Atl. Jour. 1:153. 1832, nom. subnud. sub Ochronelis Raf. (Helianthus aristatus Ell.)=Verbesina Linn.

\*DICROACTIS Raf. Herb. Raf. 67. 1833, nom.=? Coreopsis Linn

\*parviflora Raf. 1.c., nom. Cumberland Mountains.

\*rugosa Raf. 1.c., nom. (Coreopsis). Cumberland Mountains. DIPLACTIS Raf. Fl. Tellur. 2:45. 1836 [1837], descr.=Aster Linn.

alpina Raf. ex Jacks\*. Ind. Kew. 1:769. 1893 (Aster alpinus Linn.). Europe, North America.

blanda Raf. ex Jacks\*. l.c. (Aster blandus Pursh). North America.

caucasica Raf. ex Jacks\*. 1.c. (Aster caucasicus Willd.). Caucasus region.

cyanea Raf. ex Jacks\*. 1.c. (Aster cyaneus Hoffm.). Eastern North America.

novanglia Raf. ex Jacks\*. l.c. (Aster novae-angliae Linn.). North America.

DIPLEMIUM Raf. Fl. Tellur. 2:50. 1836 [1837], descr.=Erigeron Linn.

carolinianum Raf. ex Jacks\*. Ind. Kew. 1:770. 1893 (Erigeron carolinianus Linn.). North America = Euthamia caroliniana (Linn.) Greene (Solidago tenuifolia Pursh).

nervosum Raf. ex Jacks\*. l.c. (Erigeron nervosus sensu Pursh). North America. \*paniculatum Raf. Fl. Tellur. 2:51. 1836 [1837], nom. (Erigeron strigosus sensu Ell.). Southeastern United States. quercifolium Raf. ex Jacks\*. l.c. (Erigeron quercifolius Lam.).

Southeastern United States.

strigosum Raf. ex Jacks\*. l.c. (Erigeron strigosus sensu Ell.). Southeastern United States = Erigeron strigosus Muhl.

†DIPLOGON Raf. Fl. Ludovic. 167. 1817, nom. Am. Monthly Mag. Crit. Rev. 2:268. 1818, nom. (Inula mariana Linn.); op. cit. 4:195. 1819, nom., nota.; Jour. Phys. Chim. Hist. Nat. 89:260. 1819, nom., nota; Fl. Tellur. 1:16. 1836 [1837], nom.; op. cit. 2:46. 1836 [1837], nom., nota= Chrysopsis (Nutt.) Ell. 1824, nom. conserv. (Diplogon Raf., 1818; Inula Linn. sect. Chrysopsis Nutt. 1818).

\*argenteum Raf. Atl. Jour. 1:119. 1832, nom., sphalm. "argenteum." Maryland.

\*asper Raf. Herb. Raf. 40. 1833, nom. (Inula [scabra] Pursh). North America=Heterotheca subaxillaris (Lam.) Britton & Rusby (Heterotheca lamarckii Cass.).

\*ciliolatum Raf. op. cit. 67, nom. Cumberland Mountains. ericoides Raf. Atl. Jour. 1:146. 1832, nom. (Inula ericoides Torr.). North America=Aster leucelene Blake, Contr. U. S. Nat. Herb. 25:562. 1925, cum. syn.

graminifolium Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom. (Inula graminifolia Michx.). North America =

Chysopsis mariana (Linn.) Ell.

marianum Raf. ex Jacks\* Ind. Kew. 1:771. 1893 (Inula mariana Linn.). North America=Chrysopsis mariana (Linn.) Ell.

marianus Raf. ex DC. Prodr. 5:327. 1836, nom. in syn. sub Chrysopsis mariana (Linn.) Ell.=praec.

stenophyllum Raf. ex DC. l.c., nom. in syn. sub Chrysopsis argentea Ell. North America=Chrysopsis graminifolia (Linn.) Ell.

\*DIPLOPAPUS Raf. Fl. Tellur. 2:46. 1836 [1837], nom.=

Diplopappus Cassini (1819)=Aster Linn.

DIPLOSTELMA Raf. New Fl. N. Am. 2:44. 1836 [1837], descr.; op. cit. 95. 1836 [1837], nom., nota (Chaetanthera Nutt.); op. cit. 4:107. 1836 [1838], nom., nota (Chaetanthera Nutt., 1834, non Ruiz & Pavon, 1794); Good Book 45. 1840, nom. = Chaetopappa DC. (1836).

filiformis Raf. op. cit. 2:45, descr.; Aut. Bot. 12. 1840, nom. Texas=Chaetopappa asteroides (Nutt.) DC. pumila Raf. Il.cc., descr. nom. Texas, Arkansas=Chaetopappa asteroides (Nutt.) DC. fide Raf. op. cit. 2:95. radians Raf. Il.cc., descr., nom. Texas=praec.
\*DIPLOSTEPHION Raf. Fl. Tellur. 2:46. 1836 [1837], nom., nota (Aster aurantius Linn.; A. pinnatus Cav.), non Diplostephium H.B.K. (1820)=Dyssodia Cav. (1802).
DISCOMELA Raf. Neogen. 3. 1825, descr.; New Fl. N. Am. 4: 70. 1836 [1838], nom.=Helianthus Linn. angustifolia Raf. ex Jacks\*. Ind. Kew. 1:778. 1893 (Helian-

angustifolia Raf. ex Jacks\*. Ind. Kew. 1:778. 1893 (Helianthus angustifolius Linn.). North America.

atrorubens Raf. ex Jacks\*. 1.c. (Helianthus atrorubens Michx.). North America.

sparsiflora Rat. ex Jacks\* 1.c. (Helianthus sparsiflorus Ell.).
Southeastern United States. DISYNANTHUS Raf. Am. Monthly Mag. Crit. Rev. 2:268. 1818, nom.; op. cit. 4:195. 1819, nom. = Antennaria Gaertn.

(1791).plantagineus Raf. ex Jacks\*. Ind. Kew. 1:782. 1893. (Gnaph-

alium plantagineum Linn.). North America=Antennaria plantaginifolia (Linn.) Richards. #DODECALIS Raf. Fl. Tellur. 2:45. 1836 [1837], descr., subgen. Asteriscus Tourn. (Aster Linn.) (Type Aster corym-

bosus Dry.) = Aster Linn.

DONIANA Raf. Am. Monthly Mag. Crit. Rev. 2:268. 181

nom. nov. Donia R. Br. (1813) = Grindelia Willd. (1807).

#DORIA Raf. Fl. Tellur. 2:42. 1836 [1837], descr., subgen. Leioligo Raf. (Type L. petiolaris Raf.) = Doria Adans. (1763) = Solidago Linn.

DYSINANTHUS Raf. ex DC. Prodr. 6:270. 1838, nom. in syn.

=Antennaria Gaertn. (1791).

plantagineus Raf. ex DC. 1.c., nom. in syn. North America =
Antennaria plantaginea DC. (Gnaphalium plantagineum Linn.)=Antennaria plantaginifolia (Linn.) Richards.

ECLIPTA Linn. (1771), nom. conserv. (Eupatoriocephalacron Adans., 1763).

ciliata Raf. Fl. Ludovic. 69. 1817, descr. (Radiée anonyme Rob. Voy. Louis. 3:449. 1807); Med. Fl. 2:217. 1830, nom.; New Fl. N. Am. 2:40. 1836 [1837], nom. Louisiana. dichotoma Raf. New Fl. N. Am. 2:42. 1836 [1837], descr.

Arkansas. dubia Raf. op. cit. 40, descr. (E. erecto sensu Pursh, Elliott). Virginia to Florida=Eclipta alba (Linn.) Hassk.=E.

prostrata (Linn.) Linn.

flexuosa Raf. New Fl. N. Am. 2:41. 1836 [1837], descr. (E. erecta Linn.). South America.

\*geminata Raf. Herb. Raf. 61. 1833, nom. Kentucky or Illinois.

\*levigata Raf. New Fl. N. Am. 2:44. 1836 [1837] sub Clipteria dichotoma Raf., nom., nota. Tennessee=Clipteria dichotoma Raf.

\*longifolia Raf. op. cit. 40, descr. New Jersey to Florida. nutans Raf. op. cit. 40, descr. New Jersey to Florida.
nutans Raf. op. cit. 42, descr. Maryland, Virginia, Kentucky.
var. diffusa Raf. 1.c., descr.
paucifiora Raf. 1.c., descr.
†pumila Raf. Herb. Raf. 67. 1833, nom.; New Fl. N. Am. 2:
42. 1836 [1837], descr. Eastern Kentucky.
simplex Raf. New Fl. N. Am. 2:41. 1836 [1837], descr. Ala-

bama, Tennessee. sulcata Raf. l.c., descr. Louisiana.

tinctoria Raf. 1.c., descr. (E. erecta sensu Willd., Pers.). Asia and Egypt.

EDEMIAS Raf. Fl. Tellur. 2:49. 1836 [1837], descr.=Conyza Linn.

egyptiaca Raf. ex Jacks\*. Ind. Kew. 1:822. 1893 (Conyza aegyptiaca Ait.) Africa, tropical Asia.

gouani Raf. ex Jacks\*. 1.c. (Conysa gouani Willd.). Canary Islands.

ELEPHANTOPUS Linn.

\*dichotomus Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom. Kentucky.

flexuosus Raf. Fl. Ludovic. 73. 1817, descr. (Fausse radiée Rob. Voy. Louis. 3:448. 1807); First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom. Louisiana, Kentucky=E. carolinianus Raeusch.

ENDORIMA Raf. Am. Monthly Mag. Crit. Rev. 4:195. 1819, nom. nov. Balduina Nutt.; Jour. Phys. Chim. Hist. Nat. 89:260. 1819, nom. (Balduina Nutt., "Balduinia" Raf.) = Balduina Nutt. (1818), nom. conserv. (Mnesiteon Raf., 1817; Endorima Raf. 1819).

†ENDORIMA Raf. Fl. Tellur. 2:91. 1836 [1837], descr., non Raf., 1819=Helipterum DC. (1837).

modesta Raf. 1.c., descr. (Astelma modesta Sieber; Gnaphalium modestum Hook. Bot. Mag. **54**: t. 2710. 1827). South Africa=Helipterum gnaphaloides (Linn.) DC.

\*ENTROCHIUM Raf. New Fl. N. Am. 4:81. 1836 [1838], nom. sub Eupatorium pauciflorum Raf. = Eupatorium Linn.

EPATITIS Raf. New Fl. N. Am. 2:17. 1836 [1837], descr.; op. cit. 4:78. 1836 [1838], nom.=Adenostyles Cass. (1866). obliqua Raf. 1.c., descr. Oregon=A. glabra (Mill.) DC.

ERECHTITES Raf. Fl. Ludovic. 65. 1817, descr.45

hieracifolia (Linn.) Raf. ex DC. Prodr. 6:294. 1838 (Senecio hieracifolia Linn.). Eastern North America.

\*pauciflora Raf. Herb. Raf. 68. 1833, nom. Alleghany Mountains.

prealta Raf. Fl. Ludovic. 65. 1817, descr. (Ind. Kew. 1:860. 1893, E. praealta Raf.) (Anonyme Rob. Voy. Louis. 3:435. 1807). Louisiana = E. hieracifolia (Linn.) Raf. var. praealta (Raf.) Fernald.

\*uniflora Raf. Herb. Raf. 68. 1833, nom. Alleghany Moun-

ERIGERON Linn. canadensis Linn. Eastern North America.

var. lanceolatus Raf. Med. Fl. 1:164. 1828, iter. Man. Med. Bot. 164. 1841, nom.

maritimus Raf. 11.cc., nom. pusillus Raf. ll.cc., nom. serratus Raf. 11.cc., nom. uniflorus Raf. Il.cc., nom. virgatus Raf. 11.cc., nom.

\*heterophyllus Raf. 11.cc., descr. (Aster annuus Linn.). Eastern North America.

hyemalis Raf. Fl. Ludovic. 65. 1817, descr. (Vergerolle 1 Rob. Voy. Louis. 3:436. 1807). Louisiana=E. philadelphicus Linn.

lyratus Raf. Atl. Jour. 1:147. 1832, descr. Florida. ramosus Raf. Fl. Ludovic. 66. 1817, descr. (Vergerolle 2, à rayon blanc, disque grisatre Rob. op. cit. 437). Louisiana.

#ERPOTA Raf. New Fl. N. Am. 1:51. 1836, descr. subgen. Acmella Rich. (Type Acmella repens Rich.) = Spilanthes Jacq. (1760).

ESOPON Raf. Fl. Ludovic. 57. 1817, nom. nov. provis.; op. cit. 149, nom., nota=Prenanthes Linn.

glaucum Raf. op. cit. 149, nom. (Prenanthes? glauca Raf.: Chicorée usuelle Rob. Voy. Louis. 3:424. 1807); Med. Fl. 2:219. 1830, nom. Louisiana=Prenanthes serpentaria Pursh.

#ETETRA Raf. New Fl. N. Am. 4:73. 1836 [1838], nom., subgen. provis. Stevia Cav., sub Stevia ovata Raf.

EUNOXIS Raf. New Fl. N. Am. 4:82, 84. 1836 [1838], nom. nov. Agathyrsus D. Don (1829) = Lactuca Linn. amabilis Raf. op. cit. 84, descr. (Agathyrsus amabilis Raf.).
Alleghany Mountains.

EUPATORIUM Linn. altissimum Linn. var. longifolium Raf. Fl. Ludovic. 62. 1817, descr. (Eupatoire 2 Rob. Voy. Louis. 3:435. 1807). Loui-

\*celestinum Raf. First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom. = E. coelestinum Linn. cinereum Raf. New Fl. N. Am. 4:80. 1836 [1838], descr.

Alabama.

crassifolium Raf. Fl. Ludovic. 62. 1817, descr. (Eupatoire 1 Rob. Voy. Lous. 3:433. 1807); Med. Fl. 2:219. 1830, nom. Louisiana.

\*ellipticum Raf. First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom. Kentucky. fulvum Raf. New Fl. N. Am. 4:80. 1836 [1838], descr.

Alabama.

\*glaucum Raf. Herb. Raf. 66. 1833, nom. Appalachian Moun-

\*longipes Raf. Atl. Jour. 1:17. 1832, nom. alt. E. pectinatum Raf.; Herb. Raf. 61. 1833, nom. Ohio River.

<sup>45</sup> This generic name has been accepted by all authors, and yet it is rather curious to note that Candolle, Prodr. **6**:294. 1838, in his full description of the genus, states "Erechtites Rafin. fl. ludov. (1817) p. 65 (excl. char.)". This probably should be interpreted to mean char. emend., as, ex descr., the type E. prealta Raf. is now placed as a variety of E. hieracifolia (Linn.) Raf. ex DC.

EUPATORIUM (continued).

luteum Raf. Med. Repos. II. 5:361. 1808, descr.; Jour. Bot. (Paris) 1:230. 1809, descr. New Jersey. obovatum Raf. Med. Repos. II. 5:359. 1808, descr.; Jour. Bot. (Paris) 1:225. 1809, descr. Virginia. pauciflorum Raf. New Fl. N. Am. 4:80. 1836 [1838], descr. Louising Mississipsi.

Louisiana, Mississippi.

pectinatum Raf. Atl. Jour. 1:17. 1832, descr.; New Fl. N. Am. 4:81. 1836 [1838], nom. Ohio River.

†rupestre Raf. First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom.; Herb. Raf. 61. 1833, nom.; Atl. Jour. 1:17. 1832, descr.; New Fl. N. Am. 4:81. 1836 [1838], nom. Kentucky.

\*serratum Raf. Atl. Jour. 1:17. 1832, descr.; New Fl. N. Am. 4:81. 1836 [1838], nom. Virginia (Potomac River). \*stenophyllum Raf. Herb. Raf. 79. 1833, nom. Florida or

Alabama.

\*tomentosum Raf. op. cit. 67, nom. Cumberland Mountains. violaceum Raf. Fl. Ludovic. 62. 1817, descr. (Cacalia violette à feuilles d'Ortie Rob. Voy. Louis. 3:432. 1807); Med. Fl. 1:180. 1828, descr., iter. Man. Med. Bot. 180. 1841, Louisiana, Alabama = E. coelestinum Linn.
#EUTHYRSIS Raf. New Fl. N. Am. 4:75. 1836 [1838], descr.

subgen. Liatris Schreb. (1791).

\*EUTROCHIUM Raf. New Fl. N. Am. 4:78. 1836 [1838], nom., sphalm.=Eupatorium Linn.

EVAX Gaertn.

verna Raf. Atl. Jour. 1:178. 1833, descr.; Herb. Raf. 24. 1833, descr. Texas and Louisiana.

#FIMBRAMIS Raf. Fl. Tellur. 2:45. 1836 [1837], descr., subgen. Asteriscus (Tourn.) Mill. Type Aster joliolosus Ait.) = Aster Linn.

FIMBRISTIMA Raf. Fl. Tellur. 2:46. 1836 [1837], descr.= Aster Linn.

flexuosa Raf. ex Jacks\*. Ind. Kew. 1:966. 1893 (Aster flexuosus Nutt.). North America.

maritima Raf. ex Jacks\*. 1.c. (Aster maritimus Raf.). North America.

sparsiflora Raf. ex Jacks\*. 1.c. (Aster sparsiflorus Pursh). North America.

squamosa Raf. ex Jacks\*. l.c. (Aster squamosus "L.", sphalm. [Aster squarrosus Walt.].

\*FLOSTOLONIA Raf. Herb. Raf. 80. 1833, nom., nota. Quid? \*stolonifera Raf. l.c., nom. Hab.?

FLUSTULA Raf. Sylva Tellur. 116. 1838, descr.=Vernonia

Schreb. (1791), nom. conserv. (Behen Hill, 1762).
tomentosa Raf. 1.c., descr. (Conyza arborescens Linn.).
Jamaica=Vernonia arborescens (Linn.) Sw.

\*FORBESINA Raf. Sylva Tellur. 117. 1838, sub Zexmenia Llave, nom. nov. Verbesina Linn.

FORNICARIA Raf. Sylva Tellur. 116. 1838, descr. = Salmea DC. (1813), non Cav. (1794), non. conserv. (Hopkirkia Spreng., 1819; Fornicaria Raf., 1838).
scandens Raf. 1.c., nom. (Bidens scandens Linn.). Jamaica, Mexico=Salmea scandens (Linn.) DC.

FRAGMOSA Raf. Fl. Tellur. 2:50. 1836 [1837], descr.=Erigeron Linn.

alpina Raf. ex Jacks\*. Ind. Kew. 1:974. 1893 (Erigeron alpinus Linn.). Boreal and Arctic regions.

aspera Raf. ex Jacks\*. l.c. (Erigeron asper Nutt.). North America.

glabella Raf. ex Jacks\*. l.c. (Erigeron glabellus Nutt.). North America.

nudicaulis Raf. ex Jacks\*. l.c. (Erigeron nudicaulis Michx.). North America.

pumila Raf. ex Jacks\*. l.c. (Erigeron pumilus Nutt.). North America.

uniflora Raf. ex Jacks\*. 1.c. (Erigeron uniflorus Linn.). Boreal and Arctic regions.

GAILLARDIA Fouger.

amara Raf. ex Jacks\*. Ind. Kew. 1:986. 1893 (Galardia amara Raf.). Louisiana.

GALARDIA Lam. (1788) = Gaillardia Fouger. (1786).

\*amara Raf. Fl. Ludovic. 69. 1817, descr. (Anthemis Rob. Yoy. Louis. 3:440. 1807); Med. Fl. 2:222. 1830, nom., nota.

\*mandanensis Raf. Herb. Raf. 40. 1833, nom. (Upper Missouri (Mandan country)=Dakota.

\*repens Raf. First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom. Kentucky.

\*GNAFALIUM Raf. Chloris Aetn. 6. 1815, nom.=Gnaphalium

\*heteranthum Raf. 1.c., nom. Sicily = Gnaphalium heteranthum

GNAPHALIUM Linn.

\*chrysargyrum Raf. Med. Repos. II. 5:353. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. Central Eastern United States.

heteranthum Raf. Specch. Sci. 2:170. 1814, descr. Sicily.

\*nemocladum Raf. Western Minerva 42. 1821, nom., iter. Fox, Sci. II. 12:213. 1900, nom. Missouri.

rupestre Raf. Précis Découv. Somiol. 41. 1814, descr.; Jour. Bot. (Desv.) 4:271. 1814, descr. Sicily=Helichrysum rupestre (Raf.) DC.

\*stechas Raf. First Cat. Bot. Gard. Transylv. Univ. 21. 1824, nom.=G. stoechas Linn.=Helichrysum stoechas (Linn.)

GONOTHECA Raf. Med. Repos. II. 5:352. 1808, nom. (Polymnia tetragonotheca Linn.); Jour. Bot. (Paris) 2:171. 1809, nom.; Am. Monthly Mag. Crit. Rev. 2:268. 1818, nom. (Tetragonotheca Linn.); op. cit. 4:195. 1819, nom. (Tetragonotheca Linn.); Jour. Phys. Chim. Hist. Nat. 89:260. 1819, nom. (Tetragonotheca Linn.) = Tetragonotheca Linn.

helianthoides Raf. Med. Repos. l.c.; Jour. Bot. (Paris) l.c., nom. (Polymnia tetragonotheca Linn.); First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom.; Med. Fl. 2:224. 1830, nom.; A. Gray, Am. Jour. Sci. 40:228. 1841, nom. Tetragonotheca helianthoides Linn. Southeastern United States.

#GRAVEOLARIA Raf. Fl. Tellur. 2:49. 1836 [1837], nom. subgen. Paniopsis Raf. (Type Erigeron graveolens Linn.)= Inula Linn.

\*GYMNOSTYLES Raf. Fl. Ludovic. 150. 1817, nom. (Conyza marylandica Michx.), non Juss. (1804)=Pluchea Cass. (1817).

GYMNOSTYLIS Raf. Am. Monthly Mag. Crit. Rev. 2:268. 1818, nom. = Pluchea Cass. (1817).

marylandica Raf. ex Jacks\*. Ind. Kew. 1:1078. 1893 (Conyza marylandica Michx.). Eastern North America=Pluchea camphorata (Linn.) DC.

GYNEMA Raf. Fl. Ludovic. 63. 1817, descr.; op. cit. 150, nota.; Am. Monthly Mag. Crit. Rev. 4:195. 1819, nom., nota = Pluchea Cass. (1817).

argentea Raf. Fl. Ludovic. 1.c., descr. (Gnafale 2 Rob. Voy.

Louis. 3:434. 1807). Louisiana. balsamica Raf. 1.c., descr. (Gnafale lilas on baume des sauvages Rob. op. cit. 433); Med. Fl. 2:226. 1830, nom. Louisiana.

†dentata Raf. Ann. Nat. Ann. Synop. 15. 1820, nom. nov. G. viscida Raf.; DC. Prodr. 5:452. 1836, nom. in syn. Kentucky=Pluchea foetida (Linn.) DC. fide DC. l.c. \*graveolens Raf. First Cat. Bot. Gard. Transylv. Univ. 14.

1824, nom.; Herb. Raf. 62. 1833, nom. Kentucky or Illinois.

parviflora Raf. Fl. Ludovic. 64. 1817, descr. (Gnaphale 3 Rob.

op. cit. 434). Louisiana = Antennaria sp. viscida Raf. Ann. Nat. Ann. Synop. 15. 1820, descr. Kentucky=Pluchea viscida House (1921)=P. camphorata (Linn.) DC.; see Fernald, Rhodora 41:459-461, 1939.

\*HASTEOLA Raf. New Fl. N. Am. 4:78, 79. 1836 [1838], nom., nota, sub Mesadenia Raf. (Type Cacalia suaveolens Linn.) = Cácalia Linn.

HELENIUM Linn.

anceps Raf. New Fl. N. Am. 4:81. 1836 [1838], descr.; Aut. Bot. 54. 1840, nom. Georgia, Florida.

autumnale Linn.; Raf. op. cit. 82. var. angustifolium Raf. l.c., nom. brevifolium Raf. 1.c., nom. elatum Raf. 1.c., nom. latifolium Raf. 1.c., nom. levigatum Raf. 1.c., nom.

longifolium Raf. 1.c., nom.
pauciflorum Raf. 1.c., nom.
prealtum Raf. Med. Fl. 1:236. 1828, nom., iter. Man.
Med. Bot. 236. 1841.

pumilum Raf. 11.cc., nom.

villosum Raf. 11.cc., nom. \*cuneifolium Raf. Aut. Bot. 54. 1840, descr. Unaka Mountains, North Carolina.

dichotomum Raf. New Fl. N. Am. 4:81. 1836 [1838], descr.; Aut. Bot. 54. 1840, nom. Western Kentucky.

discovatum Raf. 1.c., descr., 108, nota; Aut. Bot. 1.c., nom. Florida.

flexuosum Raf. 11.cc., descr., nom., Indiana=H. nudiflorum Nutt.

traxilum Raf. New Fl. N. Am. 4:82. 1836 [1838], descr.; Aut. Bot. 54. 1840, nom. Illinois.

HELEPTA Raf. Neogen. 3. 1825, descr.; New Fl. N. Am. 1:51, 52. 1836, descr. (subgen. Acmella Rich.); op. cit. 4:70.

1836 [1838], nom.=Heliopsis Pers. (1807).
angustifolia Raf. Neogen. 3. 1825, descr. Eastern Kentucky

and Cumberland Mountains.

grandiflora Raf. 1.c., descr. Eastern Kentucky and Cumberland Mountains.

parviflora Raf. 1.c., descr. Eastern Kentucky and Cumberland Mountains.

**HELIANTHUS** Linn.

\*albicaulis Raf. Herb. Raf. 63. 1833, nom. Kentucky or Illinois

\*apetalus Collins ex Raf. New Fl. N. Am. 4:69. 1836 [1838], nom. in syn. sub Neactelis strigosa Raf.

\*ciliatus Raf. First Cat. Bot. Gard. Transylv. Univ. 14. 1824,

nom. Kentucky.

hirsutus Raf. Ann. Nat. Ann. Synop. 14. 1820, descr.; First Cat. Bot. Gard. Transylv. Univ. 14. 1824, nom. Kentucky (Knob Hills). Pennsylvania to Wisconsin southward to Georgia, Kansas and Texas.

\*limosus Raf. Herb. Raf. 63. 1833, nom. Kentucky or Illinois. \*nudicaulis Raf. First Cat. Bot. Gard. Transylv. Univ. 14.

\*\*1824, nom. Kentucky.

\*\*parviflorus Raf. I.c., nom. Kentucky.

\*procumbens Raf. Fl. Ludovic. 70. 1817, descr. (Buphthalamum Rob. Voy. Louis. 3:441. 1807). Louisiana (H. debilis Nutt., 1841).

striatus Raf. Atl. Jour. 1:17. 1832, descr. Kentucky.

tenellus Raf. 1.c., descr. Eastern Kentucky.

HELICHROA Raf. Neogen. 3. 1825, descr.; Med. Fl. 2:227.

1830, nom.; Seringe, Bull. Bot. 1:216. 1830, nom., nota., iter. Schlecht. Linnaea 8: Lit.-Ber. 81. 1833=Echinacea Moench (1794)=Brauneria Neck. (1790).

Alba Raf. Neogen. l.c., nom. (Rudbeckia purpurea Linn.).

North America = Echinacea purpurea (Linn.) Moench = Brauneria purpurea (Linn.) Britton.

amena Raf. l.c., nom. (Rudbeckia purpurea Linn.). North

America=praec.

crocea Raf. I.c., nom. (Rudbeckia purpurea Linn.); Atl. Jour. 1:150. 1832, descr. Indiana=praec.

elatior Raf. i.c., nom. (Rudbeckia purpurea Linn.). North America=praec. fusca Raf. l.c., nom. (Rudbeckia purpurea Linn.). North

America=praec. fuscata Raf. Atl. Jour. 1:150. 1832, descr. Indiana=praec. linneana Raf. Neogen. 3. 1825, nom. (Rudbeckia purpurea Linn.) = seq.

purpurea Raf. ex Jacks\*. Ind. Kew. 1:1113. 1893 (Rudbeckia purpurea Linn.)=Echinacea purpurea (Linn.) Moench= Brauneria purpurea (Linn.) Britton.

uniflora Raf. Neogen. I.c., nom. (Rudbeckia purpurea Linn.). North America=praec.

\*HELICROA Raf. Loud. Gard. Mag. 8:247. 1832, nom., nota, iter. Schlecht. Linnaea 8: Lit.-Ber. 71. 1833, iter. Britten, Jour. Bot. 38:227. 1900=praec.

\*HELIOCHROA Raf. Herb. Raf. 30. 1833, nom.=praec.
\*albiflora Raf. op. cit. 31, descr. Western Kentucky and
Tennessee=Brauneria purpurea (Linn.) Britton.
\*amena Raf. 1.c., descr. Western Kentucky=Brauneria purpurea (Linn.) Britton.

\*angustifolia Raf. 1.c., descr. Western Kentucky=Brauneria

pallida (Nutt.) Britton.

\*crocea Raf. op. cit. 32, descr. Indiana = Brauneria purpurea (Linn.) Britton.

\*elatior Raf. op. cit. 31, descr. Western Kentucky=Brauneria purpurea (Linn.) Britton.

\*fuscata Raf. 1.c., descr. Indiana = Brauneria purpurea (Linn.)

\*linneana Raf. 1.c., descr. Illinois, Missouri=Brauneria purpurea (Linn.) Britton.

\*uniflora Raf. 1.c., descr. Carolina=Brauneria purpurea (Linn.) Britton.

HELIOPHTHALMUM Raf. Fl. Ludovic. 72. 1817, descr. (Rudbeckia à feuilles de cigue Rob. Voy. Louis. 3:447. 1807) = Bidens Linn.

cicutefolium Raf. op. cit. 73, descr. Louisiana=Rudbeckia cicutaefolia Spreng.=? Bidens aristosa (Michx.) Britton var. mutica (A. Gray) Gattinger.

HELIOPSIS Pers.

\*lancifolia Raf. Herb. Raf. 66. 1833, nom. Appalachian Mountains.

HELIOREOS Raf. Atl. Jour. 1:145. 1832, descr. = Pectis Linn. angustifolius Raf. 46 1.c. (Pectis angustifolia Torr.). Central United States.

#HEMIMPHIA Raf. Herb. Raf. 30. 1833, descr., subgen. Kuhnia Linn. (Type Kuhnia tuberosa Raf.=K. critonia Ell.) = Kuhnia Linn.

HIERACIUM Linn.

striatum Raf. Am. Monthly Mag. Crit. Rev. 3:356. 1818, nom. Alleghany Mountains or Ohio.

HINGSTONIA Raf. Med. Repos. II. 5:352. 1808, nom.; Jour.

Bot. (Paris) 2:171. 1809, nom.=Verbesina Linn. exaltata Raf. 11.cc., nom. (Siegesbeckia occidentalis Linn.); A. Gray, Am. Jour. Sci. 40:228. 1841, nom. Eastern North America=Verbesina occidentalis (Linn.) Walt.

HYMENOPAPPUS L'Hérit.

\*corymbosus Baldw. ex Raf. New Fl. N. Am. 4:72. 1836 [1838], nom. in syn. sub Lomaxeta verrucosa Raf. Georgia,

Florida = Polypteris integrifolia Nutt.

ISMARIA Raf. Sylva Tellur. 117. 1838, descr. (Rosalesia La Llave, 1824) = Brickellia Ell. (1824), nom. conserv. (Coleosanthes Cass., 1817).

glandulosa Raf. 1.c., descr. (Rosalesia glandulosa La Llave & Lex.). Mexico=Brickellia cavanillesii (Cass.) A. Gray (B. squarrosa Robinson).

JACOBAEA Adans. = Senecio Linn.

balsamita Raf. ex Jacks\*. Ind. Kew. 1:1246. 1893 (Jacobea balsamita Raf.). Louisiana.

\*chrysanthemifolia Raf. Chloris Aetn. 14, 15. 1815. nom. (Senecio jacobaea Linn.). Sicily.

var. lanceolata Raf. op. cit. 15, nom., nota. crassifolia Raf. ex Jacks\*. 1.c. (Jacobea crassifolia Raf.). Central Atlantic United States.

incana Raf. ex Jacks\*. l.c. (Jacobea incana Raf.). Central Atlantic United States.

nebrodensis Raf. ex Jacks\*. 1.c. (Jacobea nebrodensis Raf.). Sicily.

opuntifolia Raf. ex Jacks\*. 1.c. (Jacobea opuntifolia Raf.). Louisiana.

verna Raf. ex Jacks\*. 1.c. (Jacobea verna Raf.). Sicily. JACOBEA Thunb. (1801) = Jacobaea (Adans. 1763) = Senecio Linn.

\*alpina Raf. Chloris Aetn. 11. 1815. nom.=Jacobaea alpina

Moench=Senecio alpinus Scop. Sicily.

\*balsamita Raf. Fl. Ludovic. 140. 1817, nom. (Senecio lyratus Michx.; S. lobatus Pers.; S. balsamitae Muhl. ex Willd.; S. glabellus Poir.); Herb. Raf. 39. 1833, nom. Louisiana to Missouri=Senecio glabellus Poir.

\*crassifolia Raf. Med. Repos. II. 5:354. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. Central Atlantic United

\*cuneifolia Raf. Herb. Raf. 66. 1833, nom. Appalachian Mountains.

\*incana Raf. Med. Repos. II. 5.354. 1808. nom. (err. "ineana"); Jour. Bot. (Paris) 2:173. 1809, nom. Central Atlantic United States.

\*nebrodensis Raf. Chloris Aetn. 6. 1815, nom. (Senecio

nebrodensis Linn.). Sicily. \*opuntifolia Raf. Fl. Ludovic. 67. 1817, descr. radié à feuilles de raquette Rob. Voy. Louis. 3:436. 1807). Louisiana.

\*verna Raf. 1.c., nom. (Senecio vernus Bivona). Sicily. \*viscosa Raf. Chloris Aetn. 11. 1815, nom.=Jacobaea viscosa Gilib.=Senecio viscosus Linn. Sicily.

46 The only entry under Helioreos is "St. angustifolius R. Pectis T. 228," i.e. Pectis angustifolia Torr. Ann. Lyc. Nat. Hist. N. Y. 2:214. 1827. It is suspected that originally Rafinesque reinstated the genus Stammarium Willd., and then "St."; under the binomial; otherwise it is difficult to explain the abbreviation "St." preceding the specific name. It was accepted in *Index Kewensis* 1:1119. 1893, as *Helioreos angusti*folius Raf.

JALAMBICA Raf. New Fl. N. Am. 4:71. 1836 [1838], descr., non Jalambicea Cerv. (1825) = Neurelmis Raf. =? Pinillosia Ossa (1836) vel ? Koehneola Urban (1901). pumila Raf. op. cit. 72, descr. Cuba or Florida.

KALIMARES Raf. Fl. Tellur. 2:46. 1836 [1837], descr.=Aster

amellus Raf. ex Jacks\*. Ind. Kew. 2:2. 1894 (Aster amellus Linn.). Europe, Asia.

KERINGA Raf. Sylva Tellur. 144. 1838, descr.=Vernonia Schreb. (1791), nom. conserv. (Behen Hill, 1762). amagdylina Raf. 1.c., descr. (Vernonia amygdalina Delile).

Central Africa. KRIGIA Schreb.

\*dentata Raf. Herb. Raf. 66. 1833, nom. Appalachian Moun-

\*graminifolia Raf. op. cit. 67, nom. Cumberland Mountains. \*heterophyla Raf. op. cit. 68, nom. Alleghany Mountains. integrifolia Raf. New Fl. N. Am. 4:86. 1836 [1838], descr. Alleghany Mountains.

\*lyrata Raf. Herb. Raf. 67. 1833, nom. Cumberland Moun-

tains.

\*missurica Raf. op. cit. 29, nom. nov. Krigia dandelion Nutt. North America=Krigia dandelion (Linn.) Nutt. (Cynthia dandelion DC.).

oppositifolia Raf. Fl. Ludovic. 57. 1817, descr. (Anonyme Rob. Voy. Louis. 3:329. 1807). Louisiana = Serinia oppositifolia O. Kuntze (S. cespitosa Raf.). petiolaris Raf. New Fl. N. Am. 4:86. 1836 [1838], descr.

Alabama.

\*pubescens Raf. Herb. Raf. 68. 1833, nom. Alleghany Mountains.

KUHNIA Linn.; see Shinners, Wrightia 1:122-144. 1946. albicaulis Raf. New Fl. N. Am. 4:105. 1836 [1838], nom. alt. Kuhnia virgata Raf. Carolina to Florida=K. eupatorioides Linn.

altaica Raf. op. cit. 1:79. 1836, descr. (Eupatorium alternifolium Ard. Animad. 2:40. t. 20. 1764). "Siberia" [East-

ern North America]=praec.

cinerea Raf. op. cit. 4:106. 1836 [1838], descr.; Aut. Bot. 11. 1840, nom. Mountains of eastern Kentucky and eastern Tennessee=praec.

†dasypia Raf. Herb. Raf. 30. 1833, descr. (K. eupatorioides sensu Ell.); New Fl. N. Am. 1:77, nom., 79, descr., 1836 (K. eupatorioides sensu Ell.). Georgia, Alabama=praec. divaricata Raf. New Fl. N. Am. 4:105. 1836 [1838], descr.

Appalachian Mountains=praec.

†elliptica Raf. Herb. Raf. 29. 1833, descr.; New Fl. N. Am. 1:76, nom., nota, 79, descr., 1836; Aut. Bot. 11. 1840, nom.

Falls of the Cumberland River = praec.
var. montana Raf. New Fl. N. Am. 1:80. 1836, nom.
(K. glabra Raf., fide Raf.). Alleghany Mountains (Monongahela River).

eupatorioides Linn.

var. angustifolia Raf. New Fl. N. Am. 1:79. 1836, descr. Pennsylvania (Schuylkill River).

corymbosa Raf. op. cit. 78, descr. Pennsylvania (Schuylkill River).

pyramidalis Raf. 1.c., descr. Pennsylvania (Schuylkill River).

fulva Raf. op. cit. 76, nom., nota, 80, descr.; op. cit. 4:105. 1836 [1838], nom. Ohio and eastern Kentucky=K. media Raf., fide Raf. 1c.=praec.
†glabra Raf. Herb. Raf. 29. 1833, descr.; New Fl. N. Am.

1:79. 1836, nom., nota. Alleghany Mountains=praec. glomerata Raf. New Fl. N. Am. 4:105. 1836 [1838], descr.

Appalachian Mountains=praec. latifolia Raf. 1.c., descr. Florida=praec.

\*lineana Raf. Herb. Raf. 29. 1833, nom. alt. Kuhnia glabra

Raf. Alleghany Mountains=pracc. †media Raf. Herb. Raf. 30. 1833, descr.; New Fl. N. Am. 1: 76. 1836 (K. fulva Raf.); Aut. Bot. 11. 1840, nom. Alleghany Mountains=praec.

\*paniculata Raf. Herb. Raf. 30. 1833, nom. alt. K. pubescens, Raf. = praec.

pubescens Raf. Herb. Raf. 30. 1833, descr.; New Fl. N. Am. 1:80. 1836, descr.; op. cit. 4:105. 1836 [1838], nom. Alleghany Mountains=praec.

†tuberosa Raf. Herb. Raf. l.c., descr.; New Fl. N. Am. 1:7 nom., nota, 80, descr., 1836 (Kuhnia critonia sensu Ell.). Carolina=praec. virgata Raf. New Fl. N. Am. 4:105. 1836 [1838], descr.

Carolina and Florida=praec.

LACTUCA Linn.

angulata Raf. New Fl. N. Am. 4:83. 1836 [1838], descr. Pennsylvania to Kentucky.

axillaris Raf. 1.c., descr. Alleghany Mountains. fistulosa Raf. Fl. Ludovic. 58. 1817, descr. (Laitue 2 Rob. Voy. Louis. 3:425. 1807); Med. Fl. 2:234. 1830, nom. Louisiana.

\*gigantea Raf. Med. Fl. 2:234. 1830, nom., nota. Eastern United States.

†maritima Raf. Herb. Raf. 69. 1833, nom.; New Fl. N. Am. 4:83. 1836 [1838], descr. Long Island to Virginia, seashores. †ovatifolia Raf. Il.cc., nom., descr. New Jersey, Pennsylvania. †pilosa Raf. Herb. Raf. 65, 1833, nom.; New Fl. N. Am. l.c., descr. Appalachian Mountains of Virginia and Carolina.

LAXANON Raf. New Fl. N. Am. 2:16. 1836 [1837], descr.; op. cit. 4:87. 106. 1836 [1838], nom., nota; Good Book 45. 1840, nom. = Serinia Raf. (1817) (Apogon Ell., 1824).

diversifolium Raf. op. cit. 46. descr. Arkansas=Serinia oppositifolia (Raf.) O. Kuntze.

heterophylum Raf. op. cit. 4:106. 1836 [1838], descr. Arkansas = praec.

parviflorum Raf. op. cit. 2:16. 1836 [1837], descr. Alabama = praec.

LEIACHENSIS Raf. Fl. Tellur. 2:45. 1836 [1837], descr.= Aster Linn

cordifolia Raf. ex Jacks\*. Ind. Kew. 2:49. 1894 (Aster cordifolius Linn.). Eastern North America.

corymbosa Raf. ex Jacks\*. l.c. (Aster corymbosus Ait.). Eastern North America=Aster divaricatus Linn.

dumosa Raf. ex Jacks\*. l.c. (Aster dumosus Linn.). Eastern North America.

foliosa Raf. ex Jacks\*. 1.c. (Aster foliosus Pers.). Eastern North America = Aster dumosus Linn.

paludosa Raf. ex Jacks\*. l.c. (Aster paludosus Ait.). South-eastern United States.

paniculata Raf. ex Jacks\*. l.c. (Aster paniculatus Lam.). Southeastern United States=Aster lamarckianus Nees.

sparsiflora Raf. ex Jacks\*. l.c. (Aster sparsiflorus Michx.). Eastern North America=Aster dumosus Linn.

LEIOLIGO Raf. Fl. Tellur. 2:42. 1836 [1837], descr. = Solidago Linn.

cesia Raf. 1.c., nom. (Solidago caesia Linn.). Eastern North America.

corymbosa Raf. l.c., nom. (Solidago corymbosa Ell.). Southeastern United States (Oligoneuron jacksonii Small).

elata Raf. I.c., nom. (Solidago elata Pursh). Eastern North America = S. sempervirens Linn.

erecta Raf. l.c., nom. (Solidago erecta Pursh). Eastern North America.

lithospermifolia Raf. l.c., nom. (Solidago lithospermifolia Willd.). Eastern North America=S. sempervirens Linn. petiolaris Raf. l.c., nom. (Solidago petiolaris Ait.). Eastern North America.

pulverulenta Raf. 1.c., nom. (Solidago pulverulenta Nutt.). Southeastern United States.

pyramidata Raf. I.c., nom. (Solidago pyramidata Pursh). Eastern North America=S. fistulosa Mill. rigida Raf. 1.c., nom. (Solidago rigida Linn.). Eastern North

America. salicina Raf. l.c., nom. (Solidago salicina Ell.). Southeastern

United States.

speciosa Raf. 1.c., nom. (Solidago speciosa Nutt.). Eastern North America.

LEONTODON Linn.

taraxacum Linn. Europe, North America=Taraxacum officinale Weber.

var. laciniatus Raf. Med. Fl. 2:19. 1830, nom.; Casket 1832:139. 1832, nom.; Sat. Eve. Post 11(556): [4]. 1832, nom.

lanceolatus Raf. 11.cc., nom. longifolius Raf. Il.cc., nom. polyphyllus Raf. 11.cc., nom. sinuatus Raf. Il.cc., nom. uniflorus Raf. 11.cc., nom.

LEPACHIS Raf. Am. Monthly Mag. Crit. Rev. 4:195. 1819, nom. (non Raf. op. cit. 207) = Echinacea Moench (1794) = Brauneria Neck (1790). 1819.

purpurea Raf. ex Jacks\*. Ind. Kew. 2:54. 1894 (Rudbeckia purpurea Linn.). North America=Echinacea purpurea (Linn.) Moench=Brauneria purpurea (Linn.) Britton.

LEPACHYS Raf. Am. Monthly Mag. Crit. Rev. 4:207. 1819, nom.; Jour. Phys. Chim. Hist. Nat. 89:100. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 239. 1820, descr. [Obelisteca Raf. 1817], non Raf. op. cit. 195=Ratibida Raf. (1817).
pinnatifida Raf. Jour. Phys. Chim. Hist. Nat. l.c., nom.
(Rudbeckia pinnata Vent.). Eastern North America=Ratibida pinnata (Vent.).

bida pinnata (Vent.) Barnh. (Lepachys pinnata Torr. &

Gray)

LEPIACTIS Raf. Fl. Tellur. 2:43. 1836 [1837], descr., non Raf. op. cit. 4:109. 1836 [1838] = Solidago Linn.

virgata Raf. 1.c., nom. (Solidago virgata Michx.). North America = Solidago stricta Ait. = S. petiolata Mill. #LEPTILIUM Raf. Fl. Tellur. 2:50. 1836 [1837], descr., subgen. Diplemium Raf. = Erigeron Linn.

\*paniculatum Raf. op. cit. 51, nom. (Erigeron strigosus sensu Ell.). South Carolina = Erigeron strigosus Muhl.

LEPTILON Raf. Am. Monthly Mag. Crit. Rev. 2:268. 1818, nom.=Erigeron Linn.

divaricatum Raf. ex Jacks\*. Ind. Kew. 2:61. 1894 (Erigeron divaricatus Michx.). Central Western United States.

\*LEPTOGYNA Raf. Sylva Tellur. 2:49. 1836 [1837], nom. sub Brephocton Raf. [Conyza Linn., subgen. Leptogyne Ell. Sketch Bot. S. Carol. Georgia 2:322. 1823] = Pluchea Cass. (1817).

\*LEPTOPEDA Raf. Cincinnati Lit. Gaz. 2:28. 1824, nom., sphalm.=Leptopoda Nutt. (1818)=Helenium Linn.

LEPTOPHORA Raf. Am. Monthly Mag. Crit. Rev. 4:195. 1819, nom. nov. Leptopoda Nutt.; Jour. Phys. Chim. Hist. Nat. 89:260. 1819, nom. (Leptopoda Nutt.)=Helenium Linn.

LEPTOPODA Nutt.=Helenium Linn. floridana Raf. Atl. Jour. 1:147. 1832, descr. Florida.

#LEUCALIS Raf. Fl. Tellur. 2:46. 1836 [1837], descr., subgen. Diplopappus Cass.=Aster Linn.

LEUCANTHEMUM Linn.=Chrysanthemum Linn.
\*nudicaule Raf. Herb. Raf. 67. 1833, nom. Cumberland Mountains.

LIATRIS Schreb.

amplexicaulis Raf. New Fl. N. Am. 4:76. 1836 [1838], descr. Georgia, Florida=Trilisa odoratissima (Walt.) Cass.

\*bracteolata Raf. Herb. Raf. 68. 1833, nom. Alleghany Moun-

botrys Raf. New Fl. N. Am. 4:76. 1836 [1838], descr. Georgia, Florida.

\*lanceolata Raf. Herb. Raf. 68. 1833, nom. Alleghany Moun-

tains. linaria Raf. Fl. Ludovic. 61. 1817, descr. (Cynarocephale éléganté sans épines Rob. Voy. Louis. 3:429. 1807). Louisiana=Liatris pycnostachya Michx. \*rigida Raf. New Fl. N. Am. 4:76. 1836 [1838], nom. nota

[North America].

†uniflora Raf. Herb. Raf. 63. 1833, nom.; New Fl. N. Am. 4:76. 1836 [1838], descr. Kentucky to Alabama=L. squarrosa (Linn.) Willd., var.

LIMBARDA Adans.=Inula Linn. arabica Raf. ex Jacks\*. Ind. Kew. 2:83. 1894 (Inula arabica Linn.). Arabia=Pulicaria arabica (Linn.) Cass.

crithmifolia Raf. ex Jacks\*. 1.c. (Inula crithmifolia Linn.).

Europe. japonica Raf. ex Jacks\*. l.c. (Inula japonica Thunb.). Japan. pinifolia Raf. ex Jacks\*. l.c. (Inula pinifolia Linn.). South Africa=Senecio pinifolius (Linn.) Lam.

#LININQUE Raf. Fl. Tellur. 2:42. 1836 [1837], descr., subgen. Leioligo Raf. = Solidago Linn.

LOMAXETA Raf. New Fl. N. Am. 4:72. 1836 [1838], nom. nov. Polypteris Nutt. (1818).

verrucosa Raf. 1.c., nom., nota (Hymenopappus corymbosus Baldw.; Polypteris integrifolia Nutt.); Aut. Bot. 21. 1840, nom. Georgia, Florida = Polypteris integrifolia Nutt.

LOPHACTIS Raf. Cincinnati Lit. Gaz. 2:28. 1824, descr.; Atl.

Jour. 1:152. 1832, descr.=Coreopsis Linn.
uniflora Raf. Il.cc., descr.; First Cat. Bot. Gard. Transylv.
Univ. 14. 1824, nom. Kentucky, Indiana, Illinois.

\*LOREOPSIS Raf. Cincinnati Lit. Gaz. 2:28. 1824, nom. sub Lophactis uniflora Raf., sphalm.=Coreopsis Linn.

\*LUPATORIUM Raf. Western Rev. Miscel. Mag. 1:93. 1819, nom., sphalm.=Eupatorium Linn.

\*calutinum Raf. l.c., nom., sphalm. [Eupatorium coelestinum Linn.]. Kentucky = Eupatorium coelestinum Linn.

MARSHALLIA Schreb.

bulbosa Raf. Fl. Ludovic. 61. 1817, descr. (Sarrette bulbeuse Rob. Voy. Louis. 3:430. 1807). Louisiana.

\*cyananthera Raf. New Fl. N. Am. 4:78. 1836 [1838], nom., sub M. tenuifolia Raf. North America.

pumila Raf. 1.c., nom. sub Marshallia tenuifolia Raf. (Thero-

lepta pumila Raf.). North America.
spiralis Raf. op. cit. 77, descr.; Aut. Bot. 21. 1840, nom.
Arkansas and western Louisiana.

tenuifolia Raf. 11.cc., descr., nom. Seashores of Georgia and Florida

#MEGACTELIS Raf. New Fl. N. Am. 1:61. 1836, descr., subgen. Actimeris Raf. = Actinomeris Nutt. (1818), nom. conserv. (Ridan Adans., 1763).

#MERISIS Raf. Fl. Tellur. 2:45. 1836 [1837], descr., subgen. Leiachenis Raf. (Type Aster cordifolius Linn.) = Aster Linn.

MESADENIA Raf. Loud. Gard. Mag. 8:247. 1832, nom., nota, iter. Schlecht. Linnaea 8: Lit. Ber. 71. 1833, iter. Britten, Jour. Bot. 38:227. 1900; New Fl. N. Am. 4:78. 1836 [1838], descr.=Senecio Linn.

atriplicifolia Raf. New Fl. N. Am. 4:79. 1836 [1838], nom. (Cacalia atriplicifolia Linn.). Eastern North America = Senecio atriplicifolius (Linn.) Hook.

\*cuneata Raf. l.c., nom. Hab.?
dentata Raf. l.c., descr. Alabama.
lanceolata Raf. l.c., nom. (Cacalia lanceolata Nutt.). Southeastern United States = Senecio boscianus Schultz-Bip.

oblonga Raf. ex Jacks\*. Ind. Kew. 2:214. 1894, sphalm. = seq. \*oblongata Raf. New Fl. N. Am. 4:79. 1836 [1838], nom. North America.

ovata Raf. l.c., nom. (Cacalia ovata Walt.]. Southeastern United States = Senecio walteri Schultz-Bip.

paniculata Raf. ex Jacks\*. Ind. Kew. 2:214. 1894 (Cacalia paniculata Raf.). North America.

plantaginea Raf. New Fl. N. Am. 4:79. 1836 [1838], nom. (Cacalia tuberosa Nutt.). Central United States=Cacalia

tuberosa Nutt. (Senecio nuttallii Schultz-Bip.).
pteranthes Raf. ex Jacks\*. Ind. Kew. 2:214. 1894 (Cacalia pteranthes Raf.). North America=Cacalia tuberosa Nutt.
pulverulenta Raf. New Fl. N. Am. 4:79. 1836 [1838], descr.

Delaware.

\*quinquefida Raf. l.c., nom. North America. reniformis Raf. l.c., nom. [Cacalia reniformis Muhl.]. Eastern North America = Senecio muhlenbergii Schultz-Bip. = Cacalia muhlenbergii (Schultz-Bip.) Fernald, Rhodora 40:

356. 1938. rotundifolia Raf. 1.c., descr. Musketong and Mahantango Mountains of the Alleghanies (Cacalia rotundifolia House, 1921, non Willd., 1804); see Fernald, l.c.

MESODETRA Raf. Fl. Ludovic. 141. 1817, nom., nota= Helenium Linn.

alata Raf. 1.c., nom., nota (Rudbeckia alata Jacq.; Helenium quadridentatum Labill.). Louisiana=Helenium quadridentatum Labill.

MESOLIGUS Raf. Fl. Tellur. 2:44. 1836 [1837], descr.=Aster Linn.

subulatus Raf. l.c., nom. (Aster subulatus Michx.). Eastern North America.

\*MICTANTHES Raf. New Fl. N. Am. 1:17. 1836, nom., nota = Myctanthes Raf. (1837)=? Aster Linn.

MIKANIA Willd. (1804), nom. conserv. (Willughbaya Neck., 1790; Carelia Cav., 1802).
angulosa Raf. Fl. Ludovic. 62. 1817, descr. (Cacalia 4 Rob.)

Voy. Louis. 3:433. 1807). Louisiana = M. scandens (Linn.) Willd.

MNESITEON Raf. Fl. Ludovic. 67. 1817, descr.; Am. Monthly Mag. Crit. Rev. 4:188. 1819, nom.=Eclipta Linn.
album Raf. Fl. Ludovic. 68. 1817. descr. (Calendula 1 Rob.

Voy. Louis. 3:439. 1807). Louisiana = Eclipta alba (Linn.)

var. pumilum Raf. l.c., descr. (Calendula 2 Rob. l.c.). Louisiana=Eclipta alba (Linn.) Hassk.

luteum Raf. l.c., descr. (Calendula 3 Rob l.c.). Louisiana.
\*pumilum Raf. l.c., nom. alt. Mnesiteon album Raf. var. pumilum Raf. = Eclipta alba (Linn.) Hassk.

MUSTERON Raf. Fl. Tellur. 2:50. 1836 [1837], descr.=Eri-

geron Linn. bellidifolium Raf. 1.c., nom. (Erigeron bellidifolius Muhl.). North America.

glabrum Raf. l.c., nom. Boreal and Arctic regions. pulchellum Raf. l.c., nom. (Erigeron pulchellus Michx.). Eastern North America.

uniflorum Raf. 1.c., nom. (Erigeron uniflorus Linn.). Boreal and Arctic regions.

MYCTANTHES Raf. New Fl. N. Am. 2:22. 1836 [1837], descr.; op. cit. 4:68. 1836 [1838], nom.; Good Book 45. 1840, nom.=Aster Linn.

axillaris Raf. l.c., descr.; Aut. Bot. 20. 1840, nom. Alle-

ghany Mountains.

latifolia Raf. ll.cc., descr., nom. Alleghany Mountains. punicea Raf. ll.cc., descr., nom. Pennsylvania (Philadelphia)

=Aster puniceus Linn.
NARBALIA Raf. New Fl. N. Am. 4:84. 1836 [1838], nom.=

Prenanthes Linn.

\*crepidinea Raf. Aut. Bot. 21. 1840, nom. sub Opicrina latifolia Raf. [Opicrina crepidinea Raf.]. Eastern North America=Prenanthes crepidinea Michx. latifolia Raf. New Fl. N. Am. l.c., descr. Alleghany Moun-

tains=Prenanthes altissima Linn.

NEACTELIS Raf. New Fl. N. Am. 4:69. 1836 [1838], descr.;

Good Book 46. 1840, nom.=Helianthus Linn. strigosa Raf. l.c., descr.; Aut. Bot. 21. 1840, nom. Florida. NEURELMIS Raf. New Fl. N. Am. 4:72. 1836 [1838], nom. alt. Jalambica Raf. =? Pinillosia Ossa (1836), vel Koehneola Urban (1901).

pumila Raf. 1.c., nom. alt. Jalambica pumila Raf.; Aut. Bot.

21. 1840, nom., nota. Cuba or Florida.

\*OBELISTECA Raf. Fl. Ludovic. 73. 1817, nom., nota; Ann. Nat. Ann. Synop. 14. 1820, nom. [Obeliscotheca Vaill.]

(Type Rudbeckia pinnata Vent.) = Lepachys Raf. (1819) = Ratibida Raf. (1817).

OCHRONELIS Raf. Atl. Jour. 1:153. 1832, descr.=Helianthus

Linn.

sulfurea Raf. 1.c., descr. Alleghany Mountains=Helianthus giganteus Linn.

var. multiflora Raf. l.c., nom. pauciflora Raf. l.c., nom. ternifolia Raf. 1.c., nom. uniflora Raf. l.c., nom.

OCNERON Raf. Fl. Tellur. 4:120. 1836 [1838], descr.=Rolan-

dra Rottb. (1775).

aquifolium Raf. l.c., descr. (Staehelina "do Sm."; [Echinops foliis lanceolatis] Plum. Pl. Am. 114. t. 123. 1756). West Indies=Rolandra fruticosa (Linn.) O. Kuntze (R. argentea Rottb.).

 cordatum Raf. 1.c., descr. [Staehelina ilicifolia Linn. f.]. Colombia=Gynoxys ilicifolia (Linn. f.) Wedd.
 ODOGLOSSA Raf. New Fl. N. Am. 2:15. 1836 [1837], descr.= Coreopsis Linn.

heterophylla Raf. op. cit. 16. descr.; Good Book 45. 1840, nom. Western Tennessee, Georgia, Alabama=Coreopsis \*grandiflora Hogg ex Sweet, Brit. Fl. Gard. 2: t. 175. 1821. OLIGACTIS Raf. Fl. Tellur. 2:44. 1836 [1837], descr., non Cass.

(1825) = Sericocarpus Nees (1833).

conyzoides Raf. 1.c., nom. [Aster conyzoides Willd.]. North America=Sericocarpus asteroides (Linn.) Britton, Sterns & Poggenb.

linifolia Raf. 1.c., nom. [Aster linifolius Linn.]. North America=Sericocarpus linifolius (Linn.) Britton, Sterns & Poggenb.

tortifolia Raf. 1.c., nom. [Aster tortifolius Michx.]. North America = Sericocarpus tortifolius (Michx.) Nees.

#OLIGLOSIS Raf. New Fl. N. Am. 1:61. 1836, descr., subgen. Actimeris Raf. = Actinomeris Nutt. (1818), nom. conserv. (Ridan Adans., 1763).

ONOPIX Raf. Fl. Ludovic. 59. 1817, descr. = Cirsium Adans. (1763).

intybaceus Raf. op. cit. 60, descr. (Charon à feuilles de chi-corée Rob. Voy. Louis. 3:428. 1807). Louisiana. sericeus Raf. 1.c., descr. (Atractylis Rob. op. cit. 427); Med.

Fl. 2:247. 1830, nom. Louisiana.

\*OPHIOSERIS Raf. New Fl. N. Am. 4:87. 1836 [1838], nom. nov. provis. sub Krigia integrifolia Raf.=Hieracium Linn.

OPICRINA Raf. New Fl. N. Am. 4:85. 1836 [1838], descr.= Prenanthes Linn.

angustifolia Raf. 1.c., nom. alt. O. crepidinea Raf. = Prenanthes crepidinea Michx. Eastern North America.

crepidinea Raf. 1.c., descr. [Prenanthes crepidinea Michx.]. Eastern North America.

latifolia Raf. l.c., descr. (Prenanthes opicrina Raf.); Aut. Bot. 1840, nom., nota. Kentucky = Prenanthes crepidinea

ORESTION Raf. Fl. Tellur. 2:48. 1836 [1837], descr.=Olearia Moench (1802), nom. conserv. (Shawia J. R. & G. Forst., dentata Raf. 1.c., nom. (Aster dentatus Andr. Bot. Repos. 1: t. 61. 1799; A. tomentosus Schrad.). Australia=Olearia dentata (Andr.) Moench.

#OSMILIS Raf. New Fl. N. Am. 4:75. 1836 [1838], descr.,

subgen. Liatris Schreb. (1791).

OTHAKE Raf. New Fl. N. Am. 4:73. 1836 [1838], descr. longifolium Raf. op. cit. 74, descr.; Aut. Bot. 12. 1840, nom. Arkansas.

tenuifolium Raf. 1l.cc., descr., nom. (Stevia callosa Nutt.).
Arkansas=Othake callosum (Nutt.) Bush; see Ammerman,

Ann. Missouri Bot. Gard. 31:253-263. 1944.

PALEISTA Raf. New Fl. N. Am. 2:40, nom. 43, descr., 1836 [1837]; Good Book 45. 1840, nom.=Eclipta Linn. (1771), nom. conserv. (Eupatoriocephalacron Adans., 1763). brachypoda Raf. op. cit. 43, descr. (Eclipta brachypoda

Michx.; Amellus carolinianus Walt.). Carolina=Eclipta alba (Linn.) Hassk.

procumbens Raf. I.c., descr (Eclipta procumbens sensu Ell.). Carolina to Florida = Eclipta alba (Linn.) Hassk. PANIOPSIS Raf. Fl. Tellur. 2:49. 1836 [1837], descr.=Inula

Linn.

fetidum Raf. ex Jacks\*. Ind. Kew. 2:420. 1894 (Erigeron foetidus Linn.). South Africa=Nidorella foetida (Linn.) DC.

glutinosum Raf. ex Jacks\*. l.c. (Erigeron glutinosus Linn.). Mediterranean region=Inula glutinosa (Linn.) Ait.

graveolens Raf. ex Jacks\*. l.c. (Erigeron graveolens Linn.). Mediterranean region=Inula graveolens (Linn.) Desf. viscosum Raf. ex Jacks\*. 1.c. (Erigeron viscosus Linn.).

Mediterranean region=Inula viscosa (Linn.) Ait. **PAPPOCHROMA** Raf. Fl. Tellur. 2:48. 1836 [1837], descr.= Erigeron Linn.

uniflora Raf. 1.c., nom. (Erigeron pappochroma Labill.). Australia=Erigeron pappochroma Labill.

PARTHENIUM Linn.

†amplectens Raf. Herb. Raf. 62. 1833, nom.; New Fl. N. Am. 2:26. 1836 [1837], descr. (Parthenium integrifolium Linn.). Kentucky = Parthenium integrifolium Linn. †angustifolium Raf. Herb. Raf. l.c., nom.; op. cit. 25, descr.

Western Kentucky.

dillenianum Raf. New Fl. N. Am. 2:26. 1836 [1837], nom. nov. provis. P. integrifolium Linn. sub P. amplectens Raf. Virginia=Parthenium integrifolium Linn.

elliotanum Raf. l.c., descr. [Parthenium integrifolium sensu Ell.]. South Carolina=Parthenium integrifolium Linn. hispidum Raf. op. cit. 35, descr. Arkansas, Texas. (P. repens Eggert, 1891). Missouri to Kansas and Texas.

\*pratense Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824,

nom. Kentucky. †pumilum Raf. Herb. Raf. 65. 1833, nom.; New Fl. N. Am. 2:25. 1836 [1837], descr. Wasioto or Cumberland Moun-

tains. †sinuatum Raf. 11.cc., nom., descr. Appalachian Mountains of Virginia.

PERAMIBUS Raf. Ann. Nat. Ann. Synop. 14. 1820, descr.= Rudbeckia Linn.

acutus Raf. ex Jacks\*. Ind. Kew. 2:468. 1894 (Coreopsis acuta Pursh). Georgia=Actinomeris alternifolia (Linn.)

acuta Fursh). Georgia = Actinomeris alternitolia (Linn.) DC. (A. squarrosa Nutt.; Ridan alternifolia Britton). hirtus Raf. Ann. Nat. Ann. Synop. 15. 1820, descr.; First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom.; Herb. Raf. 61. 1833, nom. Kentucky = Rudbeckia triloba Linn. scaber Raf. ex Jacks\*. Ind. Kew. 2:468. 1894 (Coreopsis scabra Raf.). Louisiana.

PERITRIS Raf. New Fl. N. Am. 2:23. 1836 [1837], descr.; Good Rook 45. 1840, nom. — Arnica Linn.

Good Book 45. 1840, nom.=Arnica Linn.

ovatifolia Raf. I.c., descr. Florida or Alabama=? Arnica acaulis (Walt.) Britton, Sterns & Poggenb.

\*PERSONIA Raf. Med. Repos. II. 5:353. 1808, nom.=Persoonia Michx. (1803), non Sm. (1798) = Marshallia Schreb. (1791).

\*PHAETHUSIA Raf. Am. Monthly Mag. Crit. Rev. 4:195. 1819, nom., nota; Jour. Phys. Chim. Hist. Nat. 89:260. 1819, nom., nota=Phaethusa Gaertn.=Verbesina Linn.

PLECTRECA Raf. Fl. Tellur. 4:119. 1836 [1838], descr. = Vernonia Schreb. (1791), nom. conserv. (Behen Hill, 1762). corymbosa Raf. op. cit. 120, descr. (Staehelina corymbosa Thunb.). South Africa=Vernonia corymbosa (Thunb.) Less.

#PLEIACTILA Raf. Fl. Tellur. 2:42. 1836 [1837], descr., subgen. Solidago Linn. (Type Solidago flexicaulis Linn.). \*POLATHERA Raf. Am. Monthly Mag. Crit. Rev. 4:188. 1819,

POLATHERUS Raf. Am. Monthly Mag. Crit. Rev. 2:268. 1818, nom.=Gaillardia Fouger (1788).

scaber Raf. 1.c., nom. (Galardia aristata Pursh). Rocky Moun-

tains=Gaillardia aristata Pursh.

POLYMNIA Linn. macrophylla Raf. Fl. Ludovic. 70. 1817, descr. (Polymnia Rob. Voy. Louis. 3:441. 1807). Louisiana=P. udevalia Linn.

PRENANTHES Linn.

gigantea Raf. Cincinnati Lit. Gaz. 2:10. 1824, nom nov. provis. Prenanthes opicrina Raf. Kentucky. Ex descr. = P. crepidinea Michx.

glauca Raf. Fl. Ludovic. 57. 1817, descr. (Chicorée uselle du pays Rob. Voy. Louis. 3:424. 1807). Louisiana=P. ser-

pentaria Pursh.

\*humilis Raf. Med. Repos. II. 5:353. 1808, nom.; Jour. Bot. (Paris) 2:173. 1809, nom. Central Atlantic United States. \*illinoensis Raf. First Cat. Bot. Gard. Transylv. Univ. 15.

\*\*Nanceolata Raf. Illinois l.c., nom. Kentucky.

ochroleuca Raf. Cincinnati Lit. Gaz. 2:10. 1824, nom. nov.

provis. P. opicrina Raf. Kentucky=P. crepidinea Michx.

opicrina Raf. l.c., descr.; First Cat. Bot. Gard. Transylv.

Univ. 15. 1824, nom.; Med. Fl. 1:52. 1828, nom., iter. Man.

Med. Bot. 52. 1841; Med. Fl. 2:253. 1830, nom., nota.

Kentucky=P. crepidinea Michx.

\*\*narthenoides Raf. First Cat. Bot. Gard. Transylv. Univ. 15.

\*parthenoides Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom. Kentucky. rubida Raf. Atl. Jour. 1:17. 1832, descr. Cumberland Moun-

tains and eastern Kentucky.

\*shortiana Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom. Kentucky. spicata Raf. Atl. Jour. 1:150. 1832, descr. Illinois and Ohio=

P. aspera Michx. #PSUKELIS Raf. Fl. Tellur. 2:45. 1836 [1837], descr., subgen. Leiachenis Raf. (Type Aster paludosus Ait.) = Aster Linn.

\*PTERNIX Raf. Am. Monthly Mag. Crit. Rev. 1:439. 1817, descr.; Fl. Ludovic. 59. 1817, nom., non Hill, 1762=Silybum Adans., 1763; Gaertn., 1791, nom. conserv. (Mariana Hill, 1762).

cynaroides Raf. 11.cc., nom. Sicily=Silybum marianum (Linn.) Gaertn.

PTILEPIDA Raf. Am. Monthly Mag. Crit. Rev. 2:268. 1818.

nom. nov. Actinella Pers. (1807); op. cit. 4:189. 1819,

nom.; Jour. Phys. Chim. Hist. Nat. 89:261. 1819, nom.

(Actinea Juss.); New Fl. N. Am. 1:60. 1836, nom. (Actinea Luss.); Heat. Pag. 20. 1222. Actinea Juss.); (1902) (77.24) Juss.); Herb. Raf. 39. 1833=Actinea Juss. (1803) (Tetraneuris Greene, 1898).

\*acaulis Raf. Herb. Raf. 39. 1833, nom. (Galardia [Gaillardia] acaulis Pursh) = Actinea acaulis (Pursh) Spreng. (Tetraneuris acaulis Greene). Upper Missouri (Mandan country)

= Dakota.

PTILERIS Raf. Am. Monthly Mag. Crit. Rev. 2:268. 1818, nom. (Senecio hieracifolius Linn.); op. cit. 4:195. 1819, nom.,

subgen. Senecio Linn. = Erechtites Raf. (1817).
hieracifolia Raf. ex Jacks\*. Ind. Kew. 2:657. 1895 (Senecio hieracifolius Linn.). Eastern North America = Erechtites

hieracifolia (Linn.) Raf.

PTILORIA Raf. Atl. Jour. 1:145. 1832, descr.; New Fl. N. Am. 4:85. 1836 (1838], nom., nota=Stephanomeria Nutt. (1841), nom. conserv. (Ptiloria Raf., 1832).

pauciflora Raf. l.c., nom. (Prenanthes pauciflora Torr.).

Rodry Mountain Stanfanousia and Communication (Torr.).

Rocky Mountains=Stephanomeria pauciflora (Torr.) A. Nels.

tenuifolia Raf. 1.c., nom. (Prenanthes tenuifolia Torr.). Rocky Mountains=Stephanomeria tenuifolia (Torr.) H. M. Hall. PULICARIA Gaertn.

fetida Raf. ex Jacks\*. Ind. Kew. 2:660. 1895 (Inula foetida Linn.) = Nidorella foetida (Linn.) DC. South Africa.
indica Raf. ex Jacks\*. l.c. (Inula indica Linn.) = Vicoa indica (Linn.) DC. (V. auriculata Cass.). India.
†RATIBIDA Raf. Fl. Ludovic. 73. 1817, nom., nota (Rudbeckia

columnaris Sims 1814, Pursh 1814); Am. Monthly Mag. Crit. Rev. 2:268. 1818, nom., nota; op. cit. 4:189, 195. 1819, nom., nota; Jour. Phys. Chim. Hist. Nat. 89:100. 1819, descr.; Isis von Oken 1: Lit. Anz. 239. 1820, descr. (Lepachys Raf., 1819); see Sharp, Ann. Missouri Bot. Gard. 22:66.80, 1935. Earnald Physics 40:252.356. 1939. 22:66-80. 1935; Fernald, Rhodora 40:353-356. 1938.

sulcata Raf. Jour. Phys. Chim. Hist. Nat. 89:100. 1819, nom. (Rudbeckia columnaris Sims 1814, Pursh 1814); Isis von Oken l.c., nom.; First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom.; Herb. Raf. 40. 1833, nom. Central United States=R. columnifera (Nutt.) Wooton & Standley.

#RHODILIS Raf. New Fl. N. Am. 4:75. 1836 [1838], descr., subgen. Liatris Schreb. (1791).

#PIGIDILIS Raf. Nam. Fl. N. Am. 4:76. 1926 [1920] and

#RIGIDILIS Raf. New Fl. N. Am. 4:76. 1836 [1838], sub Liatris uniflora Raf., nom. nov. provis., subgen. Liatris

ROCCARDIA Raf. Fl. Tellur. 4:119. 1836 [1838], descr., non

Neck. (1790) = Staehelina Linn. purpurea Raf. Fl. Tellur. 4:119. 1836 [1838], descr. (Staehelina dubia Linn.). Spain, Italy.

ROTHIA Schreb. = Andryala Linn.

\*integrifolia Raf. Aut. Bot. 46. 1840, nom. nov. R. andryaloides Gaertn. Spain=Andryala rothia Pers.

RUDBECKIA Linn.

†angulata Raf. Atl. Jour. 1:148. 1832, descr. Florida. \*discolor Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom.; Herb. Raf. 67. 1833, nom. Cumberland Mountains. An R. discolor Pursh?

\*grandiflora Raf. First Cat. Bot. Gard. Transylv. Univ. 15.

1824, nom. Kentucky. var. alba Raf. l.c., nom.

rubra Raf. 1.c., nom.

\*heterophyla Raf. Herb. Raf. 66. 1833, nom. Appalachian Mountains.

\*purpurea Raf. op. cit. 40. 1833, nom. Upper Missouri (Mandan country) = Dakota.

\*spatulata Raf. op. cit. 67, nom. Cumberland Mountains. An R. spathulata Michx.?

\*trinervata Raf. op. cit. 80. 1833, nom. Alabama or Florida. \*SARCHETA Raf. Atl. Jour. 1:163. 1832, nom. sub Cauloma Raf. Quid?

#SCARIOLA Raf. New Fl. N. Am. 4:75. 1836 [1838], descr., subgen. Liatris Schreb., non Scariola F. Schmidt (1795) = Liatris Schreb. (1791).

SENECIO Linn. hieracifolius Linn. var. giganteus Raf. Med. Fl. 2:262. 1830, descr. Eastern North America=Erechtites hieracifolia

(Linn.) Raf.

SERINIA Raf. Fl. Ludovic. 57. 1817, nom. nov. provis.; op. cit. 149, nom. (Apogon Ell., 1824).

cespitosa Raf. op. cit. 149, nom. nov. Krigia oppositifolia Raf. (Anonyme Rob. Voy. Louis. 3:329. 1807). Louisiana = Serinia oppositifolia (Raf.) O. Kuntze.

SILPHIUM Linn.

\*falcatum Raf. Herb. Raf. 63. 1833, nom. Kentucky or Illinois.

\*glaucum Raf. First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom.; Herb. Raf. 63. 1833, nom. Kentucky.
\*ovatum Raf. First Cat. l.c., nom.; Herb. Raf. 65. 1833, nom.

Kentucky, Appalachian Mountains.

Kentucky, Appalachian Mountains.

peristenium Raf. Atl. Jour. 1:146. 1832, nom. (Silphium "n. sp. Nutt. mss.," Torr. Ann. Lyc. Nat. Hist. N. Y. 2:215. 1827). Red River, Arkansas=S. laciniatum Linn.

†reniforme Raf. Med. Fl. 2:263. 1830, nom.; ex Nutt. Trans. Am. Philos. Soc. II. 7:342. 1841, descr. Virginia and North Carolina=S. compositum Michx., var. reniforme (Raf.) Torr. & Gray.

reticulatum Raf. Atl. Jour. 1:148. 1832, descr. Florida=Berlandiera subacaulis Nutt. (1822).

trachopus Raf. op. cit. 178. 1833, descr.; Herb. Raf. 24. 1833, descr. Texas.

descr. Texas.

\*undulatum Raf. Med. Fl. 2:263. 1830, nom. Hab.?

SITILIAS Raf. New Fl. N. Am. 4:85. 1836 [1838], descr.=

Pyrrhopappus DC. (1838), nom. conserv. (Sitilias Raf., 1838).

caroliniana Raf. 1.c., nom., nota (Barkhausia caroliniana Nutt.). Alabama=Pyrrhopappus carolinianus (Walt.) DC.

SOLIDAGO Linn. \*cordifolia Raf. Herb. Raf. 63. 1833, nom. alt. Solidago sphacelata Raf. Kentucky, Virginia=Brachychaeta sphace-

lata (Raf.) Britton.

grandiflora Raf. Med. Repos. II. 5:359. 1808, descr.; Jour. Bot. (Paris) 1:226. 1809, descr. Pennsylvania. (Oligoneuron grandiflorus (Raf.) Small, Man. Southeast. Fl. 1361. 1933) = Solidago rigida Linn. parviflora Raf. Ann. Nat. Ann. Synop. 14. 1820, nom. sub Solidago rupestris Raf. Kentucky=S. rupestris Raf.

SOLIDAGO (continued).
pauciflora Raf. Med. Repos. II. 5:359. 1808, descr.; Jour.

Bot. (Paris) 1:226. 1809, descr. New Jersey, Delaware. rupestris Raf. Ann. Nat. Ann. Synop. 14. 1820, descr.; First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom.; Herb.

Raf. 63. 1833, nom. Kentucky.

sphacelata Raf. Ann. Nat. Ann. Synop. 14. 1820, descr.; First Cat. Bot. Gard. Transylv. Univ. 15. 1824, nom.; Herb. Raf. 63. 1833, nom. Kentucky, Virginia=Brachychaeta sphacelata (Raf.) Britton. (B. cordata Torr. & Gray).

SONCHUS Linn.

fumbellatus Raf. Herb. Raf. 68. 1833, nom. Alleghany Mountains

#SQUAREOLARIA Raf. Fl. Tellur. 2:49. 1836 [1837], nom., subgen. Paniopsis Raf. (Type Erigeron viscosus Linn.)= Inula Linn.

STAEHELINA Linn.; Raf. Fl. Tellur. 4:118. 1836 [1838], descr.; sensu Raf. = Helipterum DC. (1837).

squarrosa Raf. I.c., descr., sub Anaxeton Raf. (Leyssera squarrosa Thunb.; Staehelina gnaphaloides Linn.). South Africa

= Helipterum gnaphaloides (Linn.) DC.

STEIRACTIS Raf. Fl. Tellur. 3:5. 1836 [1837], nom. nov.
Oxyura "Lindl." [DC.] = Laya [Layia] Hook. & Arn. (1833, 1838), nom. conserv. (Blepharipappus Hook., 1834, p.p.).
\*STELLIMIA Raf. Herb. Raf. 52. 1833, nom., nota (aff. Pectis

Linn.) = Pectis Linn.

\*pectoides Raf. 1.c., nom. Rocky Mountains or Oregon.

STELMANIS Raf. Fl. Tellur. 2:47. 1836 [1837], descr., non Stelmanis Raf. (1840) = Heterotheca Cass. (1817). scabra Raf. 1.c., descr. (Chrysopsis scabra Ell.). Carolina= Heterotheca subaxillaris (Lam.) Britton (H. lamarckii

Cass.). #STENACTILA Raf. Fl. Tellur. 2:42. 1836 [1837], descr.

subgen. Solidago Linn. (Type Solidago sempervirens Linn.) =Solidago Linn.

STEVIA Cav.

ovata Raf. New Fl. N. Am. 4:73. 1836 [1838], descr. Arkansas. Texas.

STRUMARIUM Raf. Ann. Gén. Sci. Phys. 6:89. 1820, nom. nov. Xanthium Linn.

STYLIMNUS Raf. Jour. Phys. Chim. Hist. Nat. 89:100. 1819, descr.; Isis von Oken 1820, 1: Lit. Anz. 239. 1820, descr. (Type Conyza marylandica Michx.=Pluchea Cass. (1817). maritimus Raf. ex DC. Prodr. 5:452. 1836, nom. in syn.

sub *Pluchea marylandica* Cass. Eastern North America = Pluchea marylandica (Michx.) Cass.

SYNOSMA Raf. Loud. Gard. Mag. 8:247. 1832, nom., nota, iter. Schlecht. Linnaea 8: Lit.-Ber. 71. 1833, iter. Britten, Jour. Bot. 38:227. 1900 = Cacalia Linn.

reniformis Raf. ex Jacks\*. Ind. Kew. 2:1025. 1895 (Cacalia reniformis Muhl.). Eastern North America.

suaveolens Raf. ex Jacks\*. 1.c. (Cacalia suaveolens Linn.). Eastern North America.

TANAXION Raf. Fl. Tellur. 2:51. 1836 [1837], nom. nov. provis., nota, sub Diplemium Raf.=Pluchea Cass. (1817).

tomentosum Raf. 1.c., descr. (Erigeron bahamensis Scop.). Bahamas = Pluchea odorata (Linn.) Cass. fide Blake in lit.

TELESIA Raf. Fl. Tellur. 2:41. 1836 [1837], descr.=Zex-

menia La Llave & Lex. (1824).

aurea Raf. l.c., descr. (Wedelia aurea D. Don; Hook. Bot.

Mag. 62: t. 3384. 1835). Mexico=Zexmenia aurea (D. Don) Benth. & Hook. f. ex Hemsl.

#TERETIOLA Raf. New Fl. N. Am. 4:75. 1836 [1838], descr., subgen. Liatris Schreb.

\*TETRAGONOTPECA Raf. Am. Monthly Mag. Crit. Rev. 2:268. 1818, nom., sphalm.=Tetragonotheca Linn.

THEROLEPTA Raf. Neogen. 3. 1825, descr.; Life of Travels 68. 1836, nom.; New Fl. N. Am. 4:78. 1836 [1838], nom. sub Marshallia tenuifolia Raf. = Marshallia Schreb. (1791). pumila Raf. Neogen. 1.c., descr. (Marshallia pumila Raf.). Western Kentucky.

\*TOMISTA Raf. New Fl. N. Am. 4:73. 1836 [1838], nom., nota (Type Stevia pedata Cav. [=Florestina pedata Cass.])

=Florestina Cass. (1815). #TRIACTIS Raf. Fl. Tellur. 2:42. 1836 [1837], descr. subgen. Solidago Linn. (Type Solidago retrorsa Michx.) = Solidago Linn.

TRIPOLION Raf. Fl. Tellur. 2:46. 1836 [1837], descr. = Aster maritimum Raf. 1.c., nom. (Aster tripolium Linn.). Europe. tataricum Raf. ex Jacks\*. Ind. Kew. 2:1122. 1895 (Aster tataricus Linn. f.). Tartary.

tenellum Raf. ex Jacks\*. 1.c. (Aster tenellus Linn.). South Africa=Felicia tenella (Linn.) Nees (F. fragilis Cass.).

TROXIMON Nutt. (1813), non Gaertn. (1791) = Agoseris Raf. (1817).

bulbosum Raf. Fl. Ludovic. 57. 1817, descr. (Leontodon bulbosus sensu Rob. Voy. Louis. 3:425. 1807). Louisiana=Krigia dandelion (Linn.) Nutt.

odoratum Raf. op. cit. 58, descr. (Chicoracée fenouillette Rob. Voy. Louis. 3:425. 1807). Louisiana.

pallidum Raf. op. cit. 59, descr. (Helmint[h]ia echioides sensu Rob. Voy. Louis. 3:426. 1807). Louisiana.

\*virginicum Raf. Fl. Ludovic. 58. 1817, nom. Virginia. TULAKENIA Raf. Fl. Tellur. 4:120. 1836 [1838], descr.=

Jurinea Cass. (1821). blanda Raf. l.c., nom. (Serratula blanda Bieb.). Europe=Jurinea mollis (Scop.) Reichb.

cyanoides Raf. 1.c., nom. (Serratula cyanoides DC.). Cau-

casus, Siberia=Jurinea cyanoides DC. mollis Raf. 1.c., nom. (Cirsium molle Scop.; Serratula simplex

DC.; Sims Bot. Mag. 51: t. 2482. 1824). Europe=Jurinea mollis (Scop.) Reichb.

TULOCLINIA Raf. Fl. Tellur. 4:119. 1836 [1838], descr.= Metalasia R. Br. (1817).

imbricata Raf. 1.c., descr. (Staehelina imbricata K. Berg.). South Africa=Metalasia imbricata (K. Berg.) Haw. (M. uniflora D. Don).

VENATRIS Raf. Fl. Tellur. 2:45, nom., 47, descr., 1836 [1837] =Aster Linn.

falcata Raf. 1.c., descr. Eastern Kentucky, at the falls of the Cumberland River.

linifolia Raf. ex Jacks\*. Ind. Kew. 2:1173. 1895 (Aster lini-

folius Linn.). Europe. pauciflora Raf. ex Jacks\*. 1.c. (Aster pauciflorus Nutt.). North America.

salicifolia Raf. ex Jacks\*. l.c. (Aster salicifolius Ait.). North America.

tenuifolia Raf. ex Jacks\*. 1.c. (Aster tenuifolius Linn.). Eastern North America.

VERNASOLIS Raf. Atl. Jour. 1:152. 1832, descr.; New Fl. N. Am. 1:6. 1836, nom.; op. cit. 2:16. 1836 [1837], nom.; Life of Travels 68. 1836, nom.=Coreopsis Linn.

auriculata Raf. Atl. Jour. 1:152. 1832, descr.; Herb. Raf. 61. 1833, nom. Western Kentucky and Tennessee=Coreopsis auriculata Linn.

glauca Raf. 11.cc., descr., nom. Western Kentucky and Tennessee.

var. parviflora Raf. Atl. Jour. l.c., nom. suboppositifolia Raf. l.c., nom.

heterophylla Il.cc., descr., nom. (heterophyla). Western Kentucky and Tennessee.

VERNONIA Schreber (1791), nom. conserv. (Behen Hill, 1762). \*alba Raf. First Cat. Bot. Gard. Transylv. Univ. 16. 1824,

nom.; Herb. Raf. 62. 1833, nom. Kentucky.
albiflora Raf. Herb. Raf. 29. 1833, descr.; New Fl. N. Am.
4:75. 1836 [1838], nom. Western Tennessee.
\*balduini Raf. New Fl. N. Am. 4:77. 1836 [1838], nom.=
Vernonia baldwini Torr. South Central United States.

brevifolia Raf. op. cit. 75, nom., 77, descr. Alabama.
crinita Raf. ll.cc., nom., descr. Louisiana and Arkansas (V.
arkansana DC., 1838; Cacalia arkansana O. Kuntze, 1891).
\*humilis Raf. l.c. 75, nom. [North America].
\*latifolia Raf. l.c., nom. [North America].

\*longifolia Raf. l.c., nom. [North America]. marginata (Torr.) Raf. Atl. Jour. 1:146. 1832, nom. (Vernonia altissima Nutt. var. marginata Torr. Ann. Lyc. Nat. Hist. N. Y. 2:210. 1827). Arkansas River (V. jamesii Torr. & Gray, 1841).

\*missurica Raf. Herb. Raf. 28, descr., 62, nom. 1833; New Fl. N. Am. 4:75. 1836 [1838], nom. Missouri (V. illinoensis Gleason, 1906; V. reedii Daniels, 1907).

VIRGARIA Raf. ex DC. Prodr. 5:243. 1836, nom. in syn.= Aster Linn.

concolor Raf. l.c., nom. in syn. sub Aster concolor Linn. North America.

VIRGULUS Raf. Fl. Tellur. 2:46. 1836 [1837], descr. = Aster Linn.

concolor Raf. ex Jacks\*. Ind. Kew. 2:1210. 1895 (Aster con-color Linn.). North America.

**XALKITIS** Raf. New Fl. N. Am. **4:71**. 1836 [1838], nom. alt. Bindera Raf.=Quid? ciliata Raf. 1.c., nom. alt. Bindera ciliata Raf. Southeastern

United States.

**XANTHIUM** Linn. \*crassum Raf. Med. Fl. 2:275. 1830, nom. (X. strumarium

auct.). North America.

†maculatum Raf. Fl. Ludovic. 167. 1817, nom., nota; Am. Monthly Mag. Crit. Rev. 2:344. 1818, nom. (prob. X. strumarium sensu Bigelow); Am. Jour. Sci. 1:152. 1818, descr.; Spreng. Neue Entdeck. 1:143. 1820, l.c., descr. Long Island, New Jersey, Pennsylvania=X. echinatum

\*undulatum Raf. Med. Fl. 2:275. 1830, nom. (X. orientale

auct.). North America.

\*XEREGATHIS Raf. Herb. Raf. 58. 1833, nom.=Baccharis

\*glomerata Raf. 1.c., nom. (Baccharis glomeruliflora Pers.). Florida.

**XETOLIGUS** Raf. New Fl. N. Am. 4:74. 1836 [1838], descr.=

Stevia Cav. (1797). brevifolius Raf. 1.c., descr.; Aut. Bot. 12. 1840, nom. Texas

or Louisiana.

salicifolius Raf. New Fl. N. Am. 1.c., nom. (Stevia salicifolia Cav.). Mexico.

ZINNIA Linn.

floridana Raf. New Fl. N. Am. 4:70. 1836 [1838], descr. Georgia, Florida=? Z. multiflora Linn.

## UNPLACED GENERA

There is a surprisingly small residue of Rafinesque's new generic names which I have not been able to place in their proper families. They are mostly nomina nuda, but the following list includes a few of which were based on inadequate descriptions of earlier authors. In addition to these there are scattered entries in certain families where it is possible to place various described genera with certainty or with reasonable certainty, although it has not been possible in all cases to indicate what genus characterized by other authors may be represented. Examples are Aimorra Raf., Aliseta Raf. and Bindera Raf. of the Compositae; Wilsonia Raf. of the Epacridaceae, and Flexularia Raf. of the Gramineae. Hydropixis Raf. placed in the Scrophulariaceae might, in part, belong to Centunculus of the Primulaceae; and Carpanthe Raf. = Carpanthus Raf., placed in

the Scrophulariaceae, might belong with Myriophyllum of the Halorhagidaceae. It was felt that such more or less doubtful Rafinesque genera were better placed under the families to which they probably belong, rather than to list them all among the few which could not be placed even to the family. Generic names which it has not been possible to place with reasonable certainty are usually followed by the expression "Quid ?.

\*ADIPSON Raf. First Cat. Bot. Gard. Transylv. Univ. 13. 1824, nom. Quid?

\*rubrum Raf. l.c., nom. Kentucky. \*saxatile Raf. 1.c., nom. Kentucky.

AGANON Raf. ex Jacks\*. Ind. Kew. 161. 1838, sphalm.=seq. umbellata Raf. ex Jacks\*. l.c., sphalm.=Agonon umbellata Raf. = seq.

\*AGNON Raf. Sylva Tellur. 161. 1838, descr. Quid?

\*umbellata Raf. 1.c., descr. (Callicarpa umbellata Lour.).
Indo-China (Annam); see Merrill, Trans. Am. Philos. Soc. II. 24(2):399. 1935.

\*HEMIARINUM Raf. Anal. Nat. Tabl. Univ. 174. 1815, nom. In his Achenopsia, Nectridia, with Coriaria Linn., Nectris Schreb., Cabomba Aubl. and Myriophyllum Linn.

\*HEPATITIS Raf. Good Book 45. 1840, nom. \*HEXAMIUM Raf. Anal. Nat. Tabl. Univ. 174. 1815, nom. In his Achenopsia, Nectridia, with Coriaria Linn., Nectria Schreb., Cabomba Aubl., and Myriophyllum Linn.

NEMELAIA Raf. Aut. Bot. 144. 1840, descr.; Pennell, Bull.

Torr. Bot. Club 48:95. 1921, nom. Quid?

laurina Raf. op. cit. 145, descr.; Pennell, 1.c., nom. Pyrenees Mountains.

\*OXYURUS Raf.47 Fl. Tellur. 3:5. 1836 [1837], nom., non

Oxyura DC., 1836. \*SCLEROTRIS Raf. New Fl. N. Am. 3:95. 1836 [1838], nom.

SILAMNUS Raf. Sylva Tellur. 60. 1838, descr. Quid? procumbens Raf. op. cit. 61, descr. (Cephalanthus procumbens Lour.). Indo-China (Annam); see Merrill, Trans. Am. Philos. Soc. II. 24(2):400. 1935.

\*XIPHODENDRON Raf. New Fl. N. Am. 3:95. 1836 [1838],

nom.

47 "I hope he [Lindley] may admit that my previous Genera Clintonia (1817) Oxyurus (1810) etc., ought to prevail over his of same names, changed by me into Gynampis and Steiractis." Oxyurus Raf. was a manuscript name, which Rafinesque never considered elsewhere as far as I have been able to determine.

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<sup>&</sup>lt;sup>48</sup> As the Rafinesque generic names in the text are arranged alphabetically under their respective families, and his binomials appear in alphabetic order under the generic names, only his generic and the modern major group names appear in this index. Supplementary to this are included the generic names and binomials of numerous other authors, including some of Rafinesque's, where such names appear in the text outside of the alphabetic sequences. Those generic names marked with an asterisk are not listed in standard indices.

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